The Regional Municipality of Durham

Planning & Economic Development Committee Agenda

Council Chambers
Regional Headquarters Building
605 Rossland Road East, Whitby

Tuesday, June 1, 2021 **9:30 AM**

Please note: In an effort to help mitigate the spread of COVID-19, and to generally comply with the directions from the Government of Ontario, it is requested in the strongest terms that Members participate in the meeting electronically. Regional Headquarters is closed to the public, all members of the public may view the Committee meeting via live streaming, instead of attending the meeting in person. If you wish to register as a delegate regarding an agenda item, you may register in advance of the meeting by noon on the day prior to the meeting by emailing delegations@durham.ca and will be provided with the details to delegate electronically.

1. Roll Call

2. Declarations of Interest

3. Adoption of Minutes

A) Planning & Economic Development Committee meeting – May 4, 2021 Pages 7 - 8

B) Special Planning & Economic Development Committee meeting – May 7, 2021 9 - 21

4. Statutory Public Meetings

4.1 Application to Amend the Durham Regional Official Plan, submitted by 1725596 Ontario Limited to permit the severance of a dwelling rendered surplus to a farming operation as a result of the consolidation of non-abutting farm parcels, in the Municipality of Clarington, File: OPA 2021-001 (2021-P-10) 22 - 28

A) Presentation

1. Lori Riviere-Doersam, Principal Planner

B) Public Input

1. Jacqueline Mann, Clark Consulting Services

C) Report

4.2 Application to Amend the Durham Regional Official Plan, submitted by Johnston Litavski Ltd. for Sunrise International Investments Inc. to permit the redevelopment of Bunker Hill Golf Course (formerly Kinsale Golf Course), in the City of Pickering, File: OPA 2021-002 (2021-P-11) 29 - 40

A) Presentation

1. Heather Finlay, Senior Planner

B) Public Input

1. Adrian Litavski, Brandon Stevens, Jun Li and Mengdi Zhen, on behalf of Sunrise International Investments Inc.

C) Correspondence

1. Stefan Woloszczuk 41

2. Barbara Woloszczuk 42

D) Report

4.3 Application to Amend the Durham Regional Official Plan, submitted by Kyle Petrovich on behalf of Grainboys Holdings Inc. to permit the development of a dry grain processing facility in the Township of Uxbridge, File: OPA 2021-004 (2021-P-15) 43 - 52

A) Presentation

1. David Perkins, Planner

B) Public Input

1. Kyle Petrovich and Steve Edwards, on behalf of Grainboys Holdings Inc.

C) Report

5. Delegations

5.1 Rob Alexander and Tracey Werry, Durham Farm Fresh Marketing Association, re: Annual Update on Durham Farm Fresh Marketing Association Activities and 2021 Workplan (2021-EDT-4) [Item 8.2 A)]

5.2 Phil Pothen, Ontario Environment Program Manager, Environmental Defence, re: Carruthers Creek Watershed Plan Update (2021-P-16) [Item 7.2 A)]

5.3 Andrew McCammon, Executive Director, Ontario Headwaters, re: Carruthers Creek Watershed Plan Update (2021-P-16) [Item 7.2 A)]

5.4 Helen Brenner re: Carruthers Creek Watershed Plan Update (2021-P-16) [Item 7.2 A)]

5.5 Aidan Dahlin Nolan, Ajax resident, re: Carruthers Creek Watershed Plan Update (2021-P-16) [Item 7.2 A)]

6. Presentations

6.1 Brad Anderson, Principal Planner, re: Carruthers Creek Watershed Plan Update (2021-P-16) [Item 7.2 A)]

7. Planning

7.1 Correspondence

A) Correspondence from Eleanor Nash, Pickering resident, regarding the Carruthers Creek Watershed and expressing concern that Durham Region may be expanding settlement into areas not included in Scenario 2 of the Watershed Plan and in so doing compromising the health and viability of the Carruthers Creek Watershed.

Recommendation: Refer to consideration of Report #2021-P-16

B) Correspondence from Donna Bell, Pickering resident, regarding the Carruthers Creek Watershed and expressing support of settlement area boundaries that are in keeping with Scenario 2 set out in the Watershed Plan and asking that the Committee reject any settlement area boundary expansion.

Recommendation: Refer to consideration of Report #2021-P-16

C) Correspondence from Michael Mossman requesting to stop the sprawl and expressing the need to protect the environment and save our watersheds.

Recommendation: Refer to consideration of Report #2021-P-16

D) Correspondence from Peter Voth, Ajax resident, regarding the Carruthers Creek Watershed and opposing expansion of the settlement areas in the Carruthers Creek Watershed.

Recommendation: Refer to consideration of Report #2021-P-16

E) Correspondence from Susie Healy, Ajax resident, regarding the Carruthers Creek Watershed and expressing support of the settlement area boundaries that are in keeping with Scenario 2 set out in the Watershed Plan and asking that any discussion of settlement area boundary expansion be rejected.

Recommendation: Refer to consideration of Report #2021-P-16

F) Correspondence from Ayelen Barrios, Ajax resident, regarding the Carruthers Creek Watershed and expressing support of the settlement area boundaries that are in keeping with Scenario 2 set out in the Watershed Plan and asking that the Committee reject any settlement area boundary expansion.

Recommendation: Refer to consideration of Report #2021-P-16

G) Correspondence from George Olson asking “which part of leave the wet lands alone do you not understand?”.

Recommendation: Refer to consideration of Report #2021-P-16

H) Correspondence from David Baxter, Ajax resident, regarding the Carruthers Creek Watershed and expressing support of the settlement area boundaries that are in keeping with Scenario 2 set out in the Watershed Plan and rejection of any settlement area boundary expansion.

Recommendation: Refer to consideration of Report #2021-P-16

I) Correspondence from Lynn Taylor, Durham resident, expressing disbelief that there are plans to alter the Carruthers Creek Watershed and requesting the Committee stop considering this ill fated plan.

Recommendation: Refer to consideration of Report #2021-P-16

J) Correspondence from Doug Moffatt, Uxbridge resident, requesting the Committee not pass the resolution to adjust the boundaries and to preserve the river system.

Recommendation: Refer to consideration of Report #2021-P-16

K) Correspondence from Helen Brenner regarding the Carruthers Creek Watershed and expressing support of the settlement area boundaries that are in keeping with Scenario 2 set out in the Watershed Plan and asking the Committee to reject any settlement area boundary expansion.

Recommendation: Refer to consideration of Report #2021-P-16

L) Edward Tait, Pickering resident, regarding the Carruthers Creek Watershed and expressing concerns regarding the proposed inclusion of the Carruthers Creek headwaters and eco system into the Pickering city limits.

Recommendation: Refer to consideration of Report #2021-P-16

M) Van Saberton, Pickering resident, regarding the Carruthers Creek Watershed and expressing support of the settlement area boundaries that are in keeping with Scenario 2 and asking the Committee not to allow plans to build more urban areas into Carruthers Creek.

Recommendation: Refer to consideration of Report #2021-P-16

N) Tony Pinto requesting the stop of developments whose purpose is exclusively motivated by financial profits while ignoring the safety of the environment.

Recommendation: Refer to consideration of Report #2021-P-16

O) Carmen Huber, Pickering resident, regarding the Carruthers Creek Watershed and expressing the need to take the consequences for Carruthers Creek very seriously and stating that it is critical that we protect Carruthers Creek to protect our waterways, farmland and endangered species' habitats.

Recommendation: Refer to consideration of Report #2021-P-16

P) Manjit Binning, Pickering resident, regarding the Carruthers Creek Watershed and expressing concern that there may be a plan in the works to eradicate the Carruthers Creek Watershed area and replace it with a concrete built up area.

Recommendation: Refer to consideration of Report #2021-P-16

Q) Jennifer Longo, Ajax resident, regarding the Carruthers Creek Watershed and expressing support of the settlement area boundaries that are in keeping with Scenario 2 set out in the watershed plan and asking the Region to reject any expansion of the settlement boundaries.

Recommendation: Refer to consideration of Report #2021-P-16

Correspondence is available from the Office of the Regional Clerk, upon request

7.2 Reports

A) Carruthers Creek Watershed Plan Update (2021-P-16) 53 - 199

B) Planning Application Processing Fees and Charges (2021-P-17) 200 - 207

8. Economic Development

8.1 Correspondence

8.2 Reports

A) Local Food in Durham Region: Durham Farm Fresh Marketing Association 2021 Workplan and Ontario Local Food Week (2021-EDT-4) 208 - 214

9. Advisory Committee Resolutions

There are no advisory committee resolutions to be considered

10. Confidential Matters

There are no confidential matters to be considered

11. Other Business

12. Date of Next Meeting

Tuesday, September 7, 2021 at 9:30 AM

13. Adjournment

Notice regarding collection, use and disclosure of personal information:

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The Regional Municipality of Durham

MINUTES

PLANNING & ECONOMIC DEVELOPMENT COMMITTEE

Tuesday, May 4, 2021

A regular meeting of the Planning & Economic Development Committee was held on Tuesday, May 4, 2021 in the Council Chambers, Regional Headquarters Building, 605 Rossland Road East, Whitby, Ontario at 9:30 AM. Electronic participation was offered for this meeting.

1. Roll Call

Present: Councillor Ryan, Chair
Councillor Joe Neal, Vice-Chair
Councillor Grant
Councillor Highet
Councillor Kerr
Councillor Lee
Regional Chair Henry
* **all members of Committee participated electronically**

Also Present: Councillor Barton
Councillor Drew
Councillor Wotten

Absent: Councillor Yamada

Staff Present: E. Baxter-Trahair, Chief Administrative Officer
B. Bridgeman, Commissioner of Planning and Economic Development
A. Caruso, Senior Planner
D. Culp, Planning Analyst
H. Finlay, Senior Planner
S. Gill, Director, Economic Development and Tourism
P. Gillespie, Manager, Development Approvals, Works Department
C. Goodchild, Manager, Policy Planning & Special Studies
R. Inacio, Systems Support Specialist, Corporate Services – IT
S. Jibb, Manager, Economic Development, Agriculture and Rural Affairs
G. Muller, Director of Planning
G. Pereira, Manager, Transportation Planning
N. Prasad, Committee Clerk, Corporate Services – Legislative Services
J. Presta, Director, Environmental Services, Works Department
L. Riviere-Doersam, Principal Planner
K. Ryan, Senior Solicitor, Corporate Services – Legal Services

S. Salomone, Manager, Economic Development, Business Development and Investment
J. Severs, Manager, Economic Development, Marketing and Cluster Development
L. Trombino, Manager, Plan Implementation
R. Walton, Regional Clerk/Director of Legislative Services
T. Fraser, Committee Clerk, Corporate Services – Legislative Services

The Chair called the meeting to order at 10:00 AM.

The Chair advised that due to technical difficulties the Region is unable to livestream the meeting and as a result the meeting is unable to proceed. He also advised that a special meeting would be called in accordance with the Procedural By-law to consider the agenda items at a later date, excluding the statutory public meetings which will be re-scheduled in accordance with the requirements of the Planning Act.

The meeting adjourned at 10:05 AM.

Respectfully submitted,

D. Ryan, Chair

T. Fraser, Committee Clerk

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 2097.

The Regional Municipality of Durham

MINUTES

PLANNING & ECONOMIC DEVELOPMENT COMMITTEE

Friday, May 7, 2021

A special meeting of the Planning & Economic Development Committee was held on Friday, May 7, 2021 in the Council Chambers, Regional Headquarters Building, 605 Rossland Road East, Whitby, Ontario at 9:30 AM. Electronic participation was offered for this meeting.

1. Roll Call

Present: Councillor Ryan, Chair
Councillor Joe Neal, Vice-Chair
Councillor Grant
Councillor Highet
Councillor Kerr
Councillor Yamada
Regional Chair Henry attended for part of the meeting
* **all members of Committee participated electronically**

Also Present: Councillor Barton attended for part of the meeting
Councillor Dies
Councillor Drew
Councillor Pickles attended for part of the meeting
Councillor Wotten

Absent: Councillor Lee was absent due to a medical appointment

Staff Present: E. Baxter-Trahair, Chief Administrative Officer
B. Bridgeman, Commissioner of Planning and Economic Development
C. Boyd, Solicitor, Corporate Services – Legal Services
A. Caruso, Senior Planner
D. Culp, Planning Analyst
S. Gill, Director, Economic Development and Tourism
C. Goodchild, Manager, Policy Planning & Special Studies
L. Huinink, Director, Rapid Transit and Transit Oriented Development
R. Inacio, Systems Support Specialist, Corporate Services – IT
S. Jibb, Manager, Economic Development, Agriculture and Rural Affairs
G. Muller, Director of Planning
G. Pereira, Manager, Transportation Planning
N. Prasad, Committee Clerk, Corporate Services – Legislative Services
J. Presta, Director, Environmental Services, Works Department

S. Salomone, Manager, Economic Development, Business Development and Investment
J. Severs, Manager, Economic Development, Marketing and Cluster Development
L. Trombino, Manager, Plan Implementation
T. Fraser, Committee Clerk, Corporate Services – Legislative Services

2. Declarations of Interest

There were no declarations of interest.

3. Adoption of Minutes

Moved by Councillor Kerr, Seconded by Councillor Highet,
(26) That the minutes of the regular Planning & Economic Development Committee meeting held on Tuesday, April 6, 2021, be adopted.
CARRIED

4. Statutory Public Meetings

There were no statutory public meetings.

5. Delegations

5.1 Marc Gibbons, Port Perry resident, re: Durham Regional Cycling Plan Update

M. Gibbons, participating electronically, appeared before the Committee with respect to the Durham Regional Cycling Plan Update. He advised that he is a member of the Durham Active Transportation Committee (DATC).

M. Gibbons also advised that the concept of a 15-minute neighbourhood has recently gained considerable traction and in Port Perry, where he lives, almost every amenity is accessible by foot or bicycle within 15 minutes. He stated it is possible to be car free in Port Perry. He also stated that since World War II, development trends have imposed car ownership as part of the housing package. He highlighted the estimated annual cost of car ownership and the percent of disposable household income in Durham Region.

M. Gibbons stated that the pandemic has shown that cycling is a viable year-round transportation mode. He also stated that cycling is not an elitist activity and is a functional way to get around. He further stated that cycling and active transportation modes are about a choice and enabling those without cars to be functional members of our society.

M. Gibbons concluded by advising that he believes the Regional Cycling Plan offers a path forward and gives an opportunity to rethink the relationship with public space and how people get around. He stated that the Regional Cycling

Plan will make the Region more resilient, sustainable and enjoyable to live in. He added that funding active transportation has to be seen as an investment and he outlined how to measure the investment.

5.2 Ron Lalonde, Chair, Durham Active Transportation Committee, re: Durham Regional Cycling Plan Update

R. Lalonde, participating electronically, appeared before the Committee with respect to the Durham Regional Cycling Plan Update. He advised that he is the Chair of the Durham Active Transportation Committee (DATC).

R. Lalonde also advised that the DATC has continued to hold virtual meetings over the past 12 months and prioritized the Regional Cycling Plan update as a primary key objective in support of safe cycling. He further advised that the DATC has been involved as a participating stakeholder and feedback provided has included the need to support midblock trail crossing at locations where trails cross Regional Roads, as well as the need to continue adding cycle cross rides at intersections across the Region.

R. Lalonde provided an overview of the public survey results which included 494 responses in the spring of 2020 without advertising support due to the pandemic. He noted that within the survey 1,757 responses ranked cycling principles with the top three priorities being enhanced safety, increased connectivity and building healthy communities; and 5,207 responses were received ranking the types of cycling infrastructure best suited to support their needs as well as organized cycling event preferences.

R. Lalonde further advised that in March 2021 the DATC was asked to review the draft Regional Cycling Plan content and proposed mapping. He stated that the DATC completed a virtual review and submitted feedback to staff for consideration. He concluded by advising that the DATC is asking Council to consider the following:

- Prioritize the request within the plan for dedicated Regional Cycling Plan staff funding;
- Review the proposed infrastructure rollout time frames and move funding support more to the immediate time frame; and
- Consider the survey results which show Durham Residents are asking for improved cycling support today, not in the future.

He added that the DATC would also like to remind Council that a plan is only as good as the financial resources dedicated to support the plan.

5.3 Bruce MacDonald, Executive Director, Durham Region Cycling Coalition, re: Durham Regional Cycling Plan Update

B. MacDonald, participating electronically, appeared before the Committee with respect to the Durham Regional Cycling Plan Update. He advised that he is the Executive Director of the Durham Region Cycling Coalition (DRCC) and he provided a brief overview of the DRCC.

B. MacDonald thanked staff for producing a very good plan and for involving the local municipal active transportation committees. He stated that staff provided many opportunities to get involved with multiple surveys and zoom meetings.

B. MacDonald referenced the proposed "Durham Meadoway" and he displayed a picture of the Toronto Meadoway which is currently under construction. He noted that a similar project is proposed in Durham Region from the Rouge National Urban Park to north Oshawa.

B. MacDonald provided the following comments with respect to the Regional Cycling Plan update:

- Projects should be brought forward and done sooner, not later;
- Many existing routes in the Regional Cycling Plan do not meet standards;
- Improve access to GO Train stations; and
- Vision Zero items should be included, such as cross rides and mid block crossings.

B. MacDonald also advised that the most active area for bikes in Durham Region are the eight forests south of Uxbridge. He stated that the three northern municipalities have not built the infrastructure due to lack of funding and he requested a funding mechanism to help the three northern municipalities.

B. MacDonald concluded by advising that the pandemic has shown people want to ride bikes and are craving it. He stated that Regional leadership is needed to coordinate the Regional Cycling Plan and to support municipalities and their cycling and active transportation plans. He emphasized the need for safety measures and added that two cyclists were killed in Durham Region in 2020 and he displayed a list of cyclists killed in Durham Region in the last 10 years.

B. MacDonald responded to questions.

5.4 Phil Smith, Uxbridge resident, re: Durham Regional Cycling Plan Update

P. Smith, participating electronically, appeared before the Committee with respect to the Durham Regional Cycling Plan Update. He advised that he is the Chair of the Uxbridge Active Transportation Committee and a member of the Durham Active Transportation Committee.

P. Smith displayed a map of Uxbridge outlining the Regional roads. He stated that it is almost impossible to get to any major destination without crossing or using a Regional road. He also stated that it is critically important that the Regional Cycling Plan works with municipal plans and the two levels of government work as partners.

P. Smith also displayed photos of Regional Road 1 and the Uxbridge Skate Park. He stated that the only way to access the Uxbridge Skate Park is along Regional Road 1. He also stated that Regional Road 1 has gravel shoulders, no sidewalk and no crosswalk to get across to the Uxbridge Skate Park. He noted that the speed limit on Regional Road 1 is 50 km/h, however the actual speed of vehicles is 70 or 80 km/h. He added that this situation is not unique and similar photos could have been used from other northern communities.

P. Smith advised that the area on Regional Road 1 is recognized in both the Regional Cycling Plan and Uxbridge Cycling Plan. He stated that both plans propose initiatives and in order to be successful they will require implementation of the two plans. He also stated that plans showing proposed multi-use paths, crosswalks or protected shoulders on a map do not do anything. He stated that the work is currently scheduled for 2026 and he questioned how many kids will have to make their way along the unsafe highway before then. He added that it is essential to move the plan forward rather than moving it back.

P. Smith concluded by displaying a photo of a café in Goodwood. He stated that cyclists don't stop at regional or municipal boundaries and the Regional Cycling Plan has to integrate the whole community.

5.5 Ian McDougall, Port Perry resident, re: Durham Regional Cycling Plan Update

I. McDougall, participating electronically, appeared before the Committee with respect to the Durham Regional Cycling Plan Update. He advised that he was previously a member of the Durham Trail Coordinating Committee and he thanked the Region for creating the Durham Active Transportation Committee.

I. McDougall also advised that he grew up in Port Perry and was always active in cycling and biking. He stated that he would like everyone to be able to integrate active transportation and cycling into their daily routines. He also stated that it has been shown that if you can get children started being active at an early age, they will carry those habits forward for an entire lifetime.

I. McDougall further advised that in 2019 he attended a cycling conference in Toronto and a keynote speaker at the conference was Charles Brown, Assistant Dean at Rutgers University. He stated that an item Mr. Brown said at the conference that has stuck with him is "pay attention to who is not in the room". He added that active transportation is important for people who are not able to attend today and that the Regional Cycling Plan is important to allow their kids to walk or bike to school or for individuals to be able to walk or bike to work.

I. McDougall concluded by referencing the photo displayed by Phil Smith earlier in the meeting. He explained that cyclists from Toronto come to the café in Goodwood and he stated that this shows the possibilities in terms of tourism. He stated that Durham Region is a Greater Toronto Area gem and he would like to see the Region raise the status of this. He added that he would like the gem to be celebrated by the residents of Durham Region and, with minimal improvements bolster the support for cycling in the community.

5.6 Don Given, Malone Given Parsons Ltd., re: Request from Richard Wannop for a Minister's Zoning Order to permit the development of a long-term care facility in the Port Perry Employment Area, Township of Scugog

D. Given, participating electronically, appeared before the Committee with respect to the request from Richard Wannop for a Minister's Zoning Order to permit the development of a long-term care facility in the Port Perry Employment Area in the Township of Scugog.

D. Given advised that Township of Scugog Council has been very supportive of the request. He also advised that the long-term care provider has an allocation for 224 beds, and they need to be in the ground by 2022. He stated that in order to do that, they need to find ways to move as quickly as possible to solve some servicing issues and to get a site plan and severance on the property. He added that the Minister's Zoning Order would facilitate this.

D. Given further advised that the recommendations included in Report #2021-P-14 of the Commissioner of Planning and Economic Development would delay the process as it would put qualifications on what can be done by the Minister. He stated that the Minister is normally looking for a clear endorsement by the local municipality and the Region to support a zoning order. He added his belief that it would cause confusion if the Region endorses the recommendation drafted by the Commissioner of Planning and Economic Development.

D. Given also advised that the long-term care facility would employ over 250 employees and cost over $30 million to construct. He explained that the facility is urgently needed as other beds are being lost within the municipality and the beds need to be replaced or they will be allocated elsewhere.

D. Given explained that the property has been found by the user after searching through the municipality where they could not find another alternative. He also explained that they turned to this property knowing that it would be difficult to deliver in the required timeframe because there is no servicing.

D. Given concluded by asking the Committee to approve support of the Minister's Zoning Order in the form passed by the local municipality.

D. Given responded to questions.

6. Presentations

6.1 Anthony Caruso, Senior Planner, and Danielle Culp, Planning Analyst, re: Durham Regional Cycling Plan 2021 (2021-P-13)

A. Caruso and D. Culp provided a presentation outlining the details of Report #2021-P-13 of the Commissioner of Planning and Economic Development. Highlights of their presentation included:

- Foundations of a Regional Cycling Plan (RCP)
- Regional Cycling Plan 2021: Vision & Process
- Regional Cycling Plan 2021 Process and Milestones
- Alignment with Regional Plans
- Durham Region Active and Sustainable Mode Share Targets
- Durham Region Community Profile
- Durham Regional Cycling Plan 2021 (RCP) Vision
- Developing a Cycling Culture in Durham
  - Promotes Tourism & Economic Investment
  - Supports changing attitudes and demographics
  - Supports the Environment
  - Enhancing Safety for Cyclists
  - Fostering a Sense of Place
- 2012 RCP Accomplishments
  - 2012 RCP Key Accomplishments
- RCP 2021 Actions and Recommendations
  - Primary Cycling Network (PCN) Network Vision
  - PCN Phasing (2021-2040)
  - Cycling Facility Types
  - RCP 2021 Supporting Cycling Strategies
  - Summary of Durham RCP 2021
- Next Steps

7. Planning

7.1 Correspondence

A) Correspondence from Township of Scugog, re: Resolution passed at their Council meeting held on April 26, 2021, regarding Request for Support of a Minister's Zoning Order – 1520, 1540 and 1580 Reach Street, Port Perry

Moved by Councillor Grant, Seconded by Councillor Kerr,

(27) That the correspondence from the Township of Scugog regarding request for support of a Minister's Zoning Order for 1520, 1540 and 1580 Reach Street, Port Perry, be referred to Report #2021-P-14 of the Commissioner of Planning and Economic Development.

CARRIED

B) Correspondence from Don Given, Planning Consultant to Mr. Wannop, regarding Report #2021-P-14: Request from Richard Wannop for a Minister's Zoning Order to permit the development of a long-term care facility in the Port Perry Employment Area, Township of Scugog

Moved by Councillor Grant, Seconded by Councillor Kerr,

(28) That the correspondence from Don Given regarding Report #2021-P-14: Request from Richard Wannop for a Minister's Zoning Order to permit the development of a long-term care facility in the Port Perry Employment Area, Township of Scugog, be referred to Report #2021-P-14 of the Commissioner of Planning and Economic Development.

CARRIED

C) Memorandum from Brian Bridgeman, Commissioner of Planning and Economic Development, regarding Supplementary Information Pertaining to Commissioner's Report #2021-P-14, Request from Richard Wannop for a Minister's Zoning Order to permit the development of a long-term care facility in the Port Perry Employment Area

Moved by Councillor Grant, Seconded by Councillor Kerr,

(29) That the memorandum from Brian Bridgeman, Commissioner of Planning and Economic Development, regarding Supplementary Information Pertaining to Commissioner's Report #2021-P-14, Request from Richard Wannop for a Minister's Zoning Order to permit the development of a long-term care facility in the Port Perry Employment Area, be referred to Report #2021-P-14 of the Commissioner of Planning and Economic Development.

CARRIED

7.2 Reports

A) Proposal for a Regional E-Mobility By-law (2021-P-12)

Report #2021-P-12 from B. Bridgeman, Commissioner of Planning and Economic Development, was received.

Staff responded to questions with respect to whether the proposed by-law includes mobility scooters (assistive devices); whether e-scooters and e-bikes need to be registered or insured; if ATVs may be used on roads; and the proposed consultation timelines and process.

Moved by Councillor Highet, Seconded by Councillor Kerr,

(30) That Report #2021-P-12 of the Commissioner of Planning and Economic Development be received for information.

CARRIED

B) Durham Regional Cycling Plan, 2021 (2021-P-13)

Report #2021-P-13 from B. Bridgeman, Commissioner of Planning and Economic Development, was received.

Moved by Councillor Joe Neal, Seconded by Councillor Kerr,
(31) That Report #2021-P-13 of the Commissioner of Planning and Economic Development be received for information.

CARRIED

C) Request from Richard Wannop for a Minister's Zoning Order to permit the development of a long-term care facility in the Port Perry Employment Area, Township of Scugog (2021-P-14)

Report #2021-P-14 from B. Bridgeman, Commissioner of Planning and Economic Development, was received.

Discussion ensued with respect to the request for a Minister's Zoning Order and the proposed amendment to the recommendations contained in Report #2021-P-14 of the Commissioner of Planning and Economic Development.

Staff responded to questions with respect to the proposed amendment; the extension of municipal water and sewer services; whether there would be time pressures based on recommendations included in Report #2021-P-14; the ability to add other proposed uses on lands abutting the long-term care facility in the future; whether the location of the new long-term care facility on the site can be determined at a later date; if the servicing costs will be borne by the developer; whether the servicing study cost can be justified for five acres; whether servicing is usually considered during a zoning or site plan application; the potential outcome if a Minister's Zoning Order is not approved; whether servicing and other development applications would be considered after the approval of a Minister's Zoning Order; when other proposed uses could be contemplated based on the current zoning; and how the request is likely to be viewed by the Ministry without a definite location or site on the property.

Moved by Councillor Joe Neal, Seconded by Councillor Yamada,
(32) That we recommend to Council:

A) That the Regional Chair be authorized to write to the Minister of Municipal Affairs and Housing to advise of the Region's support for the use of a Minister's Zoning Order to permit the construction of a new long-term care facility on the south side of Reach Street in Port Perry; and

B) That should Regional Council support the development of a new long-term care facility in Port Perry by way of a Minister's Zoning Order, that the Regional Chair's letter to the Minister specify that:

i) The MZO must be scoped to apply only to the lands on which the long-term care facility will be built;

ii) That the new long-term care facility should be located at the northeast corner of the Wannop property to facilitate ease of servicing and to minimize potential future land use conflicts;

iii) That before the MZO is enacted, the proponent submit the appropriate servicing studies to the Region's satisfaction showing how municipal water and sewer services will be provided to the site;

iv) That the costs of extending municipal water and sewer services to the site will be borne by the proponent(s), not the Region; and

v) That the Region's support of this MZO not be construed as Regional support for the landowner's employment land conversion request on the abutting lands made through Envision Durham.

CARRIED LATER IN THE MEETING
(See Following Motion)

The Committee recessed at 10:52 AM and reconvened at 11:01 AM.

The Committee Clerk conducted a roll call following the recess and all members of Committee were present with the exception of Councillor Lee and Regional Chair Henry.

Moved by Councillor Kerr, Seconded by Councillor Highet,
(33) That the foregoing main motion (32) of Councillors Joe Neal and Yamada be amended as follows:

i) in Part A) by deleting the words "on the south side of Reach Street in Port Perry" at the end of the paragraph;

ii) in Part B) by re-lettering item v), as a new Part C);

iii) by deleting Part B) and items i), ii), iii) and iv), in their entirety; and

iv) by adding the following new Part B):

'B) That Retirement Home, Medical Centre, Day Care and post secondary education facility be added to the list of permitted uses already defined by by-law'."

DEFEATED ON A RECORDED VOTE
LATER IN THE MEETING
(See following motions)

Councillor Joe Neal rose on a point of order, that the amending motion (33) of Councillors Kerr and Highet was out of order as it is contrary to the main motion.

Chair Ryan ruled the amending motion (33) of Councillors Kerr and Highet in order.

Councillor Joe Neal challenged the ruling of the Chair. The ruling of the Chair was UPHELD ON THE FOLLOWING RECORDED VOTE:

Yes	No
Councillor Grant	Councillor Joe Neal
Councillor Highet	
Councillor Kerr	
Councillor Yamada	
Councillor Ryan, Chair	

Members Absent: Councillor Lee
Regional Chair Henry

Declarations of Interest: None

The amending motion (33) of Councillors Kerr and Highet was then put to a vote and DEFEATED ON THE FOLLOWING RECORDED VOTE:

Yes	No
None	Councillor Grant
	Councillor Highet
	Councillor Kerr
	Councillor Joe Neal
	Councillor Yamada
	Councillor Ryan, Chair

Members Absent: Councillor Lee
Regional Chair Henry

Declarations of Interest: None

The main motion (32) of Councillors Joe Neal and Yamada was then put to a vote and CARRIED ON THE FOLLOWING RECORDED VOTE:

Yes	No
Councillor Grant	None
Councillor Highet	
Councillor Kerr	
Councillor Joe Neal	
Councillor Yamada	
Councillor Ryan, Chair	

Members Absent: Councillor Lee
Regional Chair Henry

Declarations of Interest: None

8. Economic Development

8.1 Correspondence

A) Correspondence from City of Oshawa, re: Resolution passed at their Council meeting held on March 29, 2021, regarding Process to Establish the City of Oshawa including the lands in Oshawa operated by Hamilton-Oshawa Port Authority as a Foreign Trade Zone

Moved by Councillor Kerr, Seconded by Councillor Joe Neal,

(34) That the correspondence from the City of Oshawa regarding Process to Establish the City of Oshawa including the lands in Oshawa operated by Hamilton-Oshawa Port Authority as a Foreign Trade Zone be referred to staff for a report.

CARRIED

8.2 Reports

There were no Economic Development reports to be considered.

9. Advisory Committee Resolutions

There were no advisory committee resolutions to be considered.

10. Confidential Matters

There were no confidential matters to be considered.

11. Other Business

11.1 Durham Is Home Collection

S. Gill advised that the Economic Development and Tourism Division has launched their Durham is Home collection this week. He also advised that there is extraordinary community pride among Durham residents, and the Division wanted to try and capture that feeling and to help community champions and residents tell the story of why Durham Region is a truly great place to live and work.

S. Gill explained that they have launched a merchandise and apparel line that carries various icons that each represent the concept of ‘home’ and resonate with a sense of belonging and pride of community. He stated that they launched with 22 icons, offering shirts, hoodies, drinkware, hats and reusable bags. He added that the apparel is made in Canada and printed in Durham.

S. Gill concluded by advising that proceeds will be invested into recovery and restoration of our tourism industry, promoting the businesses, destinations, and events that make Durham wonderful. He added that the online shop is live and can be accessed at durhamtourism.ca/shop.

12. Date of Next Meeting

The next regularly scheduled Planning & Economic Development Committee meeting will be held on Tuesday, June 1, 2021 at 9:30 AM in the Council Chambers, Regional Headquarters Building, 605 Rossland Road East, Whitby.

13. Adjournment

Moved by Councillor Joe Neal, Seconded by Councillor Kerr,
(35) That the meeting be adjourned.
CARRIED

The meeting adjourned at 12:07 PM

Respectfully submitted,

D. Ryan, Chair

T. Fraser, Committee Clerk

REVISED

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 2564

The Regional Municipality of Durham Report

To:	Planning and Economic Development Committee
From:	Commissioner of Planning and Economic Development
Report:	#2021-P-10
Date:	**June 1, 2021**

Subject:

Public Meeting Report

Application to Amend the Durham Regional Official Plan, submitted by 1725596 Ontario Limited to permit the severance of a dwelling rendered surplus to a farming operation as a result of the consolidation of non-abutting farm parcels, in the Municipality of Clarington, File: OPA 2021-001.

Recommendation:

That the Planning and Economic Development Committee recommends to Regional Council:

A) That Commissioner's Report #2021-P-10 be received for information; and

B) That all submissions received be referred to the Planning Division for consideration.

Report:

1. Purpose

1.1 On February 16, 2021, Clark Consulting Services Ltd., on behalf of 1725596 Ontario Limited, submitted an application to amend the Regional Official Plan (ROP) to permit the severance of a dwelling rendered surplus as a result of the consolidation of non-abutting farm parcels in the Municipality of Clarington.

1.2 A “Notice of Complete Application and Public Meeting” regarding the application has been advertised in the “Clarington This Week” newspaper. **A sign has also been posted on the property.** Notice of this meeting has also been mailed to those who own land within 120 metres (400 feet) of the subject site. The report was made available to the public prior to the meeting.

2. Site Description

2.1 The subject site is located on the north side of Station Street and east of Highway 35/115. The parcel is municipally known as 40 Station Street, Part of Lot 27, Concession 5 in the former Township of Clarke. It is located east of the Orono Urban Area.

2.2 The applicant is a private farm corporation which owns a total of 16 farm properties that encompass over 451 ha (1,115 acres) primarily composed of apple orchards. The subject site was acquired in October 2016.

2.3 The agricultural parcel is irregular in shape and contains an existing dwelling and five agricultural buildings. A wooded valleyland associated with the Orono Creek is located on the south-eastern portion of the parcel, and there is a pond with a watercourse located on the northern portion of the parcel.

2.4 Surrounding uses located adjacent to the subject site, include:

a. North – woodland, agricultural lands, Orono Urban Area (deferred);
b. East – agricultural lands;
c. South – Station Street, rural residential uses; and
d. West – Highway 35/115, Orono Urban Area.

2.5 The proposed amendment to the ROP would permit the severance of a 0.62 ha (1.54 acre) parcel of land containing a farm dwelling from a 35.8 ha (88.47 acre) agricultural parcel. The retained agricultural parcel will continue to be used for agricultural purposes.

3. Reports Submitted in Support of the Application

3.1 A Planning Justification Report prepared by Clark Consulting Services Ltd., has been submitted in support of the application. The report concludes that the proposed amendment meets the objectives and requirements of the Provincial Policy Statement, the Greenbelt Plan and the ROP. The report also concludes the

proposed severance will comply with Minimum Distance Separation (MDS) requirements.

3.2 A Farm Holdings Inventory Report prepared by Clark Consulting Service Ltd., indicates that 1725596 Ontario Limited owns a total of 16 farms in the Municipality of Clarington (refer to Attachment 2). There are five houses, two of which are occupied by farm employees, and three are occupied by persons not related to the farm. The residence on the subject site is currently rented and is not required for the farm operation.

3.3 The Site Screening Questionnaire completed by GHD indicated that there are no significant environmental site contamination concerns on the subject property.

4. Provincial Plans and Policies

4.1 The subject site is located within the “Protected Countryside” designation of the Greenbelt Plan. A small portion of the property, associated with the Orono Creek Valley, includes the “Natural Heritage System” overlay. The Provincial Policy Statement as well as the Greenbelt Plan may permit the severance of a residence surplus to a farming operation as a result of farm consultation. Severances of surplus farm dwellings are allowed provided the planning authority ensures that a residential dwelling is not permitted in the future on the proposed retained farm lot created by the severance.

5. Durham Regional Official Plan Context

5.1 The subject site is designated “Prime Agricultural Areas” and “Major Open Space Areas” in the ROP. There are also Key Natural Heritage/Key Hydrologic Features identified on the subject site. Severance applications for agricultural uses may be considered in accordance with the relevant policies of Sub-Section 9A of the ROP.

5.2 Policy 9A.2.10 of the ROP permits the severance of a farm dwelling rendered surplus as a result of a farmer acquiring a non-abutting farm, provided that:

a. The dwelling is not needed for a farm employee;
b. The farm parcel is a size which is viable for farming operations;
c. For sites within the Protected Countryside of the Greenbelt Plan, the dwelling was in existence as of December 16, 2004; and
d. The farm parcel is zoned to prohibit any further severances or the establishment of any residential dwelling.

6. Consultation

6.1 The ROP Amendment has been circulated to a variety of agencies, including Ministry of Municipal Affairs and Housing; the Municipality of Clarington; the Regional Health Department; Ganaraska Region Conservation Authority; and the Durham Agricultural Advisory Committee.

7. Public Consultation

7.1 Anyone who attends the public meeting may present an oral submission and/or provide a written submission to the Planning and Economic Development Committee on the proposed amendment. Also, any person may make written submissions at any time before Regional Council makes a decision.

7.2 If a person or public body does not make oral submissions at a public meeting or does not make written submissions before the proposed official plan amendment is adopted, the person or public body:

a. Is not entitled to appeal the decision of the Region of Durham to the Local Area Planning Tribunal (LPAT) (formerly the Ontario Municipal Board); and
b. May not be added as a party to the hearing of an appeal before the LPAT, as appropriate, unless in the opinion of the Tribunal, there are reasonable grounds to add the person or public body as a party.

7.3 Anyone who wants to be notified of Regional Council's decision on the proposed ROP Amendment must submit a written request to:

Brian Bridgeman, MCIP, RPP
Commissioner of Planning and Economic Development
Planning and Economic Development Department
Regional Municipality of Durham
Durham Regional Headquarters
600 Rossland Road East
Whitby, ON, L1N 6A3

8. Future Regional Council Decision

8.1 The Planning and Economic Development Committee will consider the proposed ROP Amendment at a future meeting and will make a recommendation to Regional Council. Council's decision will be final unless appealed.

8.2 All persons who make oral submissions, or have requested notification in writing, will be given notice of the future meeting of the Planning and Economic Development Committee and Regional Council at which the subject application will be considered.

9. Previous Reports and Decisions

9.1 Report #2021-P-10 was to be considered at the May 4, 2021 Planning and Economic Development Committee meeting. However, due to unforeseen technical issues, this meeting was rescheduled, and the public meeting is now scheduled for June 1, 2021. It was not possible to give notice of this June meeting in the newspaper; hence signage was placed on the property on May 11th to meet the notice requirements of the Planning Act.

10. Relationship to Strategic Plan

10.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:

a. Economic Prosperity, Goal 3.5 provide a supportive environment for agriculture and agri-food industries.

11. Attachments

Attachment #1: Location Sketch

Attachment #2: Agricultural Land Holdings

Respectfully submitted,

Original signed by

Brian Bridgeman, MCIP, RPP
Commissioner of Planning and
Economic Development

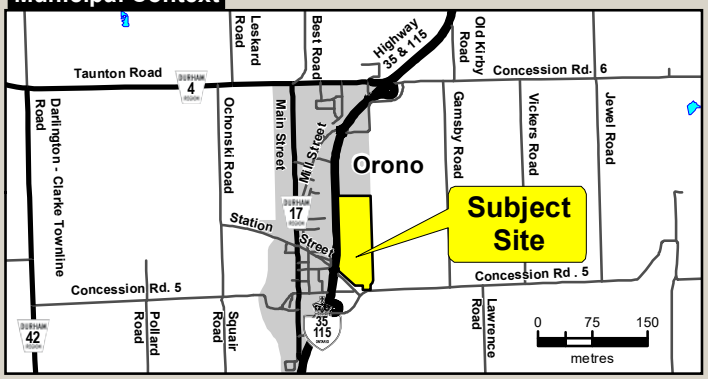
Recommended for Presentation to Committee

Original signed by

Elaine C. Baxter-Trahair
Chief Administrative Officer

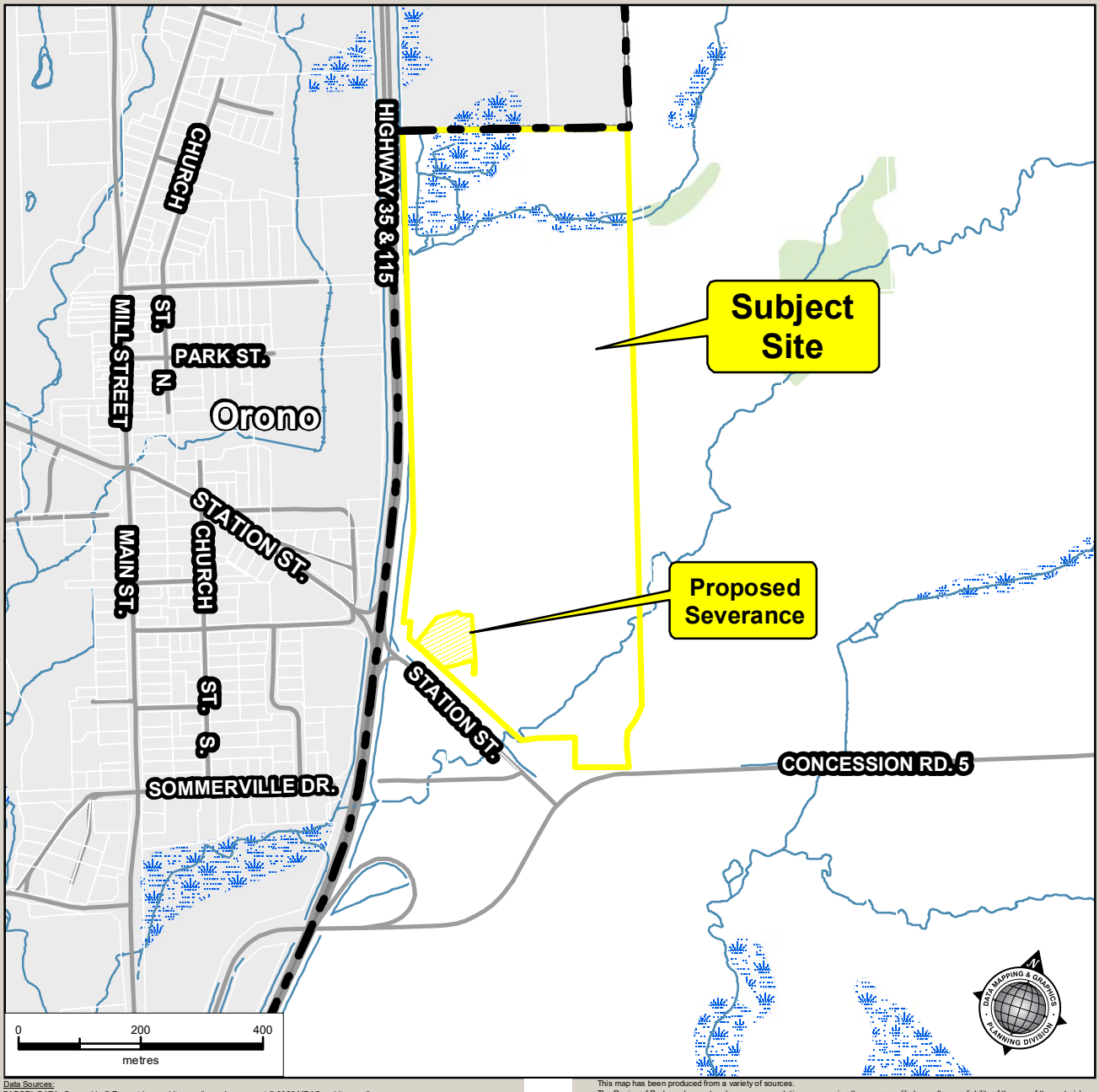
Attachment:1
Commissioner's Report: #2021-P-10
File: OPA 2021-001
Municipality: Clarington

Municipal Context



Legend

- Subject Site
- Proposed Severance
- Wetland
- Urban Area
- Vegetation



Data Sources:
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The Region hereby disclaims all representations and warranties.

Attachment:2
Commissioner's Report: #2021-P-10
File: OPA 2021-001
Municipality: Clarington

Legend

- Subject Site
- Other Lands Owned by 1725596 Ontario Limited

Data Sources:
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The Regional Municipality of Durham Report

To:	Planning and Economic Development Committee
From:	Commissioner of Planning and Economic Development
Report:	#2021-P-11
Date:	June 1, 2021

Subject:

Public Meeting Report

Application to Amend the Durham Regional Official Plan, submitted by Johnston Litavski Ltd. for Sunrise International Investments Inc. to permit the redevelopment of Bunker Hill Golf Course (formerly Kinsale Golf Course), in the City of Pickering. File OPA 2021-002

Recommendation:

That the Planning and Economic Development Committee recommends:

A) That Commissioner's Report #2021-P-11 be received for information; and

B) That all submissions received by referred to the Planning Division for consideration.

Report:

1. Purpose

1.1 On March 5, 2021, Johnston Litavski Ltd., on behalf of Sunrise International Investments Inc. submitted an application to amend the Regional Official Plan (ROP) to redesignate the subject site municipally known as 3695 Sideline 4, from 'Prime Agricultural Area' to 'Major Open Space Area'. The proposed amendment would permit the redevelopment of the existing 12-hole golf course to allow a 9-hole golf course, a clubhouse with banquet facility, golf dome for an indoor driving range, a maintenance structure, putting green and associated golf cart routes, surface parking areas, stormwater management ponds, and landscaped open space.

1.2 A “Notice of Complete Application and Public Meeting” regarding the application has been advertised in the “Pickering News Advertiser” newspaper. **A sign has also been posted on the property.** Notice of this meeting has also been mailed to those who own land within 120 metres (400 feet) of the subject site and the notice was posted on the Region’s website. The report was made available to the public prior to the meeting.

2. Background

2.1 In December 2009, Regional Council approved Amendment #131 to the ROP which added Exception 9A.3.17 to the ROP’s Prime Agricultural policies to allow the 12-hole golf course with maintenance buildings, a club house with limited food service, and a separate indoor golf simulator, subject to the fulfilment of the following conditions:

a. submission of a site plan application to implement the golf course uses to the satisfaction of the City of Pickering;
b. the establishment of a program to monitor and report on the quality and quantity of surface water and groundwater for a minimum of 5 years following construction to the satisfaction of the Region, City of Pickering and Toronto Region Conservation Authority;
c. submission of a Sediment and Erosion Control Plan to the satisfaction of the Toronto and Region Conservation Authority;
d. appropriate arrangements for a conservation easement, to the satisfaction of the Toronto and Region Conservation Authority, to ensure the long-term stewardship of the creek and surrounding open space buffer;
e. approval of the sewage disposal system and Permit to Take Water by the Ministry of the Environment, Conservation and Parks; and
f. submission of a signed Record of Site Condition (RSC) to the Ministry of the Environment, Conservation and Parks (MECP) for the area of the fill pile and former commercial property. The RSC must be to the satisfaction of the Region and the City, including an Acknowledgement of Receipt of the RSC by the MECP.

3. Previous Reports and Decisions

3.1 On June 3, 2008, Planning Committee received Public Meeting Report 2008-P-51 which proposed a 12-hole golf course and associated accessory structures on the subject property.

3.2 On December 16, 2009, Regional Council approved Amendment #131 to the ROP through Commissioner's Report #2009-P-77.

3.3 Report #2021-P-11 was to be considered at the May 4, 2021 Planning and Economic Development Committee meeting. However, due to unforeseen technical issues, this meeting was rescheduled, and the public meeting is now scheduled for June 1, 2021. It was not possible to give notice of this June meeting in the newspaper; hence signage was placed on the property on May 11th to meet the notice requirements of the Planning Act.

4. Site Description

4.1 The subject site is approximately 29.6 hectares in size and is located on the north side of Highway 7, east of Sideline 4, just west of the Hamlet of Kinsale in the City of Pickering (see Attachment #1).

4.2 **Approximately 20 years ago, a large quantity of fill material was deposited on the property by a previous owner. To create the existing golf course, this mound of fill material was covered with soil and shaped.** Along with the 12-hole golf course, the site contains a detached maintenance structure, golf cart routes, a surface parking area and three stormwater management ponds (see Attachment #2). A valleyland feature, and an unnamed intermittent tributary of the Carruthers Creek traverses the property from north to south. An existing wetland feature is located on the eastern portion of the property, and wooded areas are on the west, east and southern portions of the property.

4.3 Uses surrounding the subject site include:

a. North – agricultural land, hydro corridor and Highway 407;
b. East – agricultural land, and the Hamlet of Kinsale;
c. South – Highway 7, agricultural lands, and a country estate residential subdivision (Barclay Estates);
d. West – rural residential, agricultural lands and a hydro corridor.

4.4 The applicant is proposing to redevelop the site from a 12-hole to a 9-hole golf course with a clubhouse/banquet facility, a golf dome for an indoor driving range, a maintenance structure, a putting green, along with associated golf cart routes, surface parking areas, stormwater management ponds, and landscaped open spaces. Access to the site will remain from the existing driveway on Sideline 4 (see Attachment #3).

4.5 The following reports were submitted with the application:

- Planning Justification Report (Johnston Litavski Ltd., February 2021);
- Agricultural Assessment Report (Miller Golf Design Group, February 2021);
- Environmental Impact Study (Beacon Environmental, February 2021);
- Functional Servicing Report (SCS Consulting Group, February 2021);
- Phase One Environmental Site Assessment (Golder, June 2020);
- Preliminary Hydrogeological Investigation (Golder, January 2021); and
- Transportation Study (WSP, February 2021).

4.6 Peer reviews will likely be conducted on the Agricultural Assessment report, and the Preliminary Hydrogeological Investigation report by consultant(s) selected by the Region, at the applicant's expense.

5. Policy Context

Provincial Policy Statement, 2020

5.1 The Provincial Policy Statement requires Prime Agricultural Areas to be protected for agriculture for the long term. Prime Agricultural Areas permit agricultural uses, agricultural-related uses and on-farm diversified uses.

5.2 Lands can only be removed from the Prime Agricultural Area designation for settlement areas or for settlement area boundary expansions through a Municipal Comprehensive Review in accordance with policy 1.1.3.8.

5.3 Non-agricultural uses that may be permitted in Prime Agricultural Areas only include the following:

a. The extraction of minerals, petroleum resources and mineral aggregate resources; or
b. Limited non-residential uses, provided that all of the following items are demonstrated:

1. the land does not comprise of a specialty crop area;
2. the proposed use complies with the minimum distance separation formulae;
3. there is an identified need within the planning horizon for additional land to accommodate the use; and
4. alternative locations have been evaluated, and

i. there are no reasonable alternative locations which avoid prime agricultural areas; and
ii. there are no reasonable alternative locations in prime agricultural areas with lower priority agricultural lands.

A Place to Grow: Growth Plan for the Greater Golden Horseshoe

5.4 The Growth Plan for the Greater Golden Horseshoe ("the Growth Plan") identifies an Agricultural System for the Greater Golden Horseshoe, and prime agricultural areas will be designated in accordance with mapping identified by the Province.

5.5 Outside of the Greenbelt Area, the provincial mapping of the agricultural land base will be implemented through the Regional Official Plan. Lands designated prime agricultural areas identified in the ROP as of July 1, 2017 will be considered the agricultural land base.

5.6 The Region will be refining the provincial mapping of prime agricultural areas through Envision Durham, the Region's Municipal Comprehensive Review. Such refinements may only occur through a Municipal Comprehensive Review process with the Region. Once in effect, this designation is meant to protect prime agricultural lands in the long-term for agricultural use.

Regional Official Plan

5.7 The subject site is currently designated 'Prime Agricultural Areas' subject to Exception 9A.3.17 in the ROP. Prime Agricultural Areas consist of areas where prime agricultural lands predominate. They also include areas of lesser agricultural significance (Canada Land Inventory Classes 4 to 7 soils) and additional areas where there is a local concentration of farms which exhibit characteristics of ongoing agriculture.

5.8 Policy 9A.3.17 of the ROP provides the permissions for the existing golf course and associated uses on the subject site.

5.9 Policy 9A.2.7 of the ROP states that, "new and expanding major recreational uses, shall not be permitted in Prime Agricultural Areas". The definition of major recreational uses includes golf courses. The existing golf course was permitted as an exception due to the amount of fill that existed on the property.

5.10 The application proposes to redesignate the site to "Major Open Space Area". Major Open Space Areas include key natural heritage features or hydrologic features, prime agricultural lands as well as lands of lesser agricultural significance. Policy

10A.2.8 permits new and expanding major recreational uses within Major Open Space Areas by amendment to the ROP, or an area municipal official plan in accordance with the following policies:

a. a hydrogeological study addressing the protection of water resources;
b. a Best Management Practices report addressing design, construction and operation considerations; and
c. that new natural self-sustaining vegetation be located in areas to maximize the ecological value of the area.

5.11 Policy 10A.2.5 provides policies for the development of non-agricultural uses in Major Open Space Areas that require:

a. where possible minimizing the use of prime agricultural lands, including Canada Land Inventory Classes 1, 2 and 3 soils;
b. demonstrating that the use is appropriate for location in the Major Open Space Area;
c. be encouraging locations on existing parcels of land appropriately sized for the proposed use;
d. incorporating an appropriate separation distance from farm operations in accordance with Provincial Minimum Distance Separation formulae;
e. being compatible with sensitive land uses in compliance with Provincial Land Use Compatibility guidelines, particularly issues of noise and dust must be addressed;
f. being located on an existing opened public road and shall not compromise the design and function of the road;
g. being serviced with an individual private waste disposal system and an individual private drilled well which meet Provincial and Regional standards;
h. being sensitive to the environment be ensuring there will be no negative impact on key natural heritage or hydrologic features;
i. maintaining or, where possible, enhancing the amount of natural self-sustaining vegetation on the site and the connectivity between adjacent key natural heritage or hydrologic features;
j. being subject to local planning approvals including being zoned in a special zoning category for the use;
k. avoiding the use of outdoor lighting that causes light trespass, glare and uplight;
l. where applicable, meeting the requirements of the Oak Ridges Moraine Conservation Plan and the Greenbelt Plan; and

m. not adversely impacting the ability of surrounding agricultural operations to carry on normal farm practices.

6. Proposed Official Plan Amendment

6.1 The proposed Regional Official Plan amendment is proposing to redesignate the site to “Major Open Space Areas”, delete policy 9A.3.17 and add a new site-specific policy to permit a 9-hole golf course, a clubhouse with banquet facility, golf dome for an indoor driving range, a maintenance structure, putting green and associated golf cart routes, surface parking areas, stormwater management ponds, and landscaped open spaces on the subject site.

7. Consultation

7.1 The application has been circulated to the Ministry of Municipal Affairs and Housing, the City of Pickering, the Town of Whitby, the Town of Ajax, Regional Works Department, Regional Health Department, Durham Region Transit, Ministry of Transportation, Transport Canada, the Toronto and Region Conservation Authority, the Durham District School Board, the Durham Catholic School Board, Durham Environmental Advisory Committee, Durham Agricultural Advisory Committee, Hydro One, and Ontario Power Generation.

7.2 At the time of writing this report, comments have been received by Canada Post, the Durham District School Board, Durham Catholic School Board, Enbridge Gas and Enbridge Pipelines, and Ontario Power Generation, all indicating no concern with the proposed amendment.

7.3 The Durham Agricultural Advisory Committee considered this application at their meetings on April 13, 2021 and May 11, 2021 and have unanimously agreed through a recorded vote not to support this application.

8. Related Applications

8.1 The applicant submitted concurrent applications to amend the City of Pickering Official Plan (OPA 21-001/P) and Zoning By-law (A 05/21). These applications are currently under review by the City of Pickering and the relevant agencies.

9. Public Participation

9.1 A “Notice of Public Meeting” regarding this application has been advertised in the Pickering News Advertiser and mailed to all property owners within 120 metres of

the proposed amendment. **A sign has also been posted on the property.** This report was also made available to the public prior to the meeting.

9.2 Anyone who attends or participates in a public meeting may present an oral submission and/or provide a written submission to the Planning and Economic Development Committee on the proposed amendment. Also, any person may make written submissions at any time before Regional Council makes a decision.

9.3 If a person or public body does not make oral submissions at a public meeting or does not make written submissions before the proposed official plan amendment is adopted, the person or public body:

a. Is not entitled to appeal the decision of the Region of Durham to the Local Planning Appeal Tribunal (LPAT) (formerly the Ontario Municipal Board); and
b. May not be added as a party to the hearing of an appeal before the LPAT, as grounds to add the person or public body as a party.

9.4 Anyone who wants to be notified of Regional Council's decision on the proposed ROP Amendment must submit a written request to:

Brian Bridgeman, MCIP, RPP
Commissioner of Planning and Economic Development
Planning and Economic Development Department
Regional Municipality of Durham
Durham Regional Headquarters
600 Rossland Road East
Whitby, ON, L1N 6A3

10. Future Regional Council Decision

10.1 The Planning and Economic Development Committee will consider the proposed ROP Amendment at a future meeting and will make a recommendation to Regional Council. Council's decision will be final unless appealed.

10.2 All persons who make oral submissions, or have requested notification in writing, will be given notice of the future meeting of the Planning and Economic Development Committee and Regional Council at which the subject application will be considered.

11. Relationship to Strategic Plan

11.1 Economic Prosperity and Service Excellence - In the processing of Regional Official Plan Amendment applications, the objective is to ensure responsive, effective and fiscally sustainable service delivery.

12. Attachments

Attachment #1: Location Sketch

Attachment #2: Existing Site Plan for Golf Course

Attachment #3: Preliminary Site Plan for proposed Golf Course

Respectfully submitted,

Original signed by

Brian Bridgeman, MCIP, RPP
Commissioner of Planning and
Economic Development

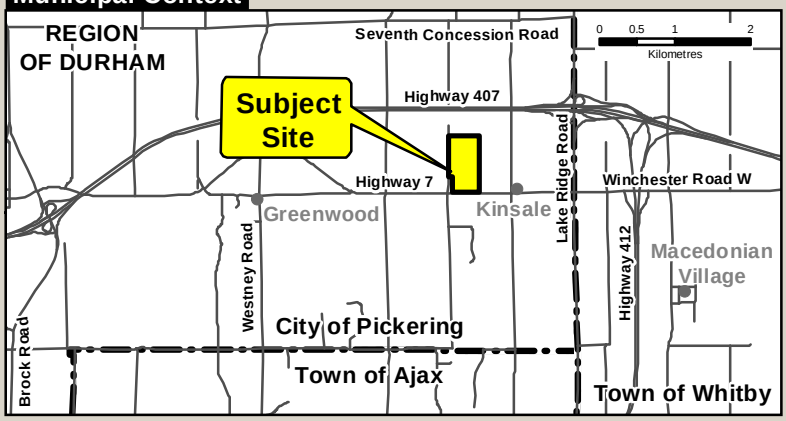
Recommended for Presentation to Committee

Original signed by

Elaine C. Baxter-Trahair
Chief Administrative Officer

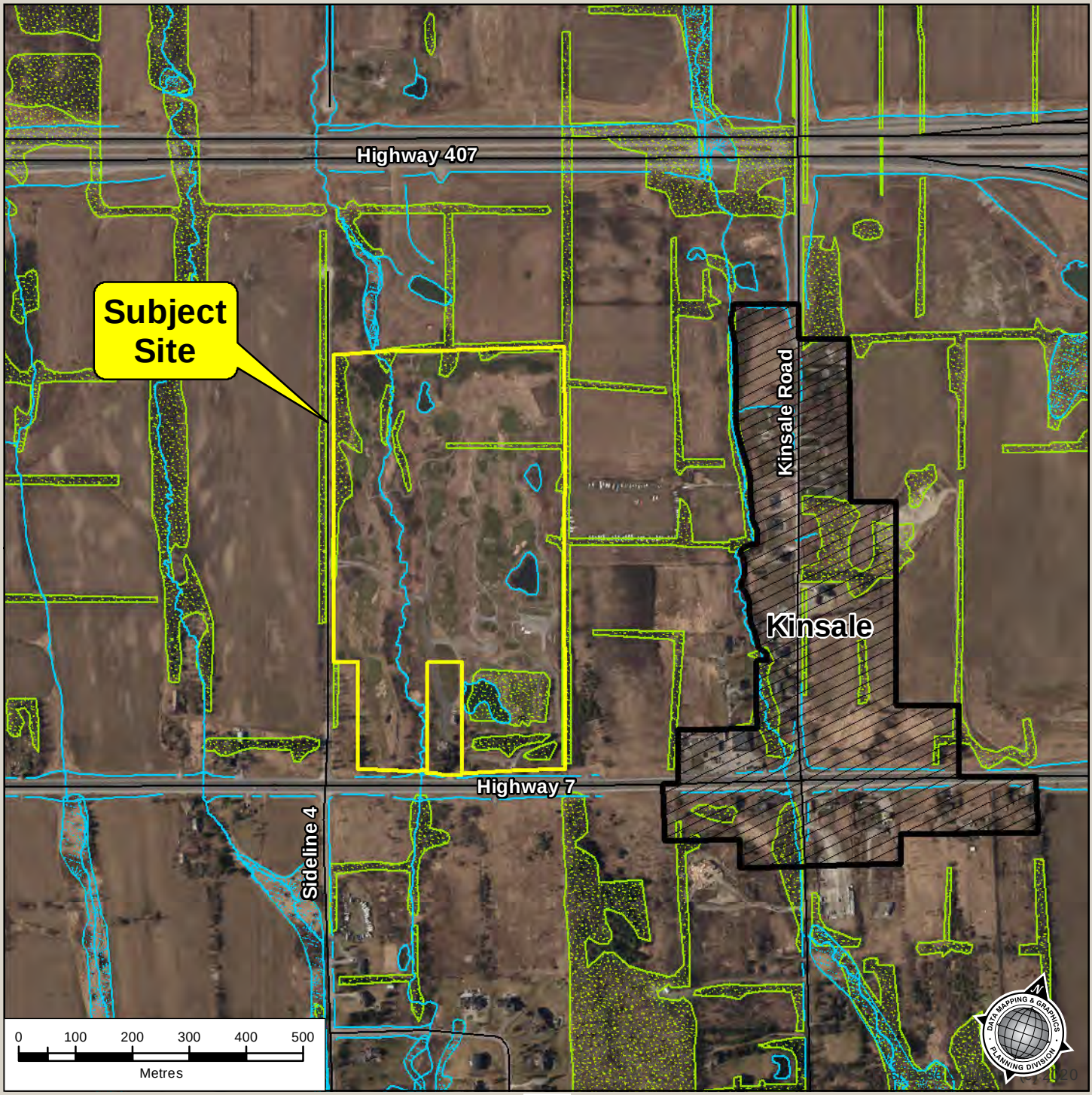
Attachment #1
Commissioner's Report: #2021-P-11
File: OPA 2021-002
Municipality: City of Pickering

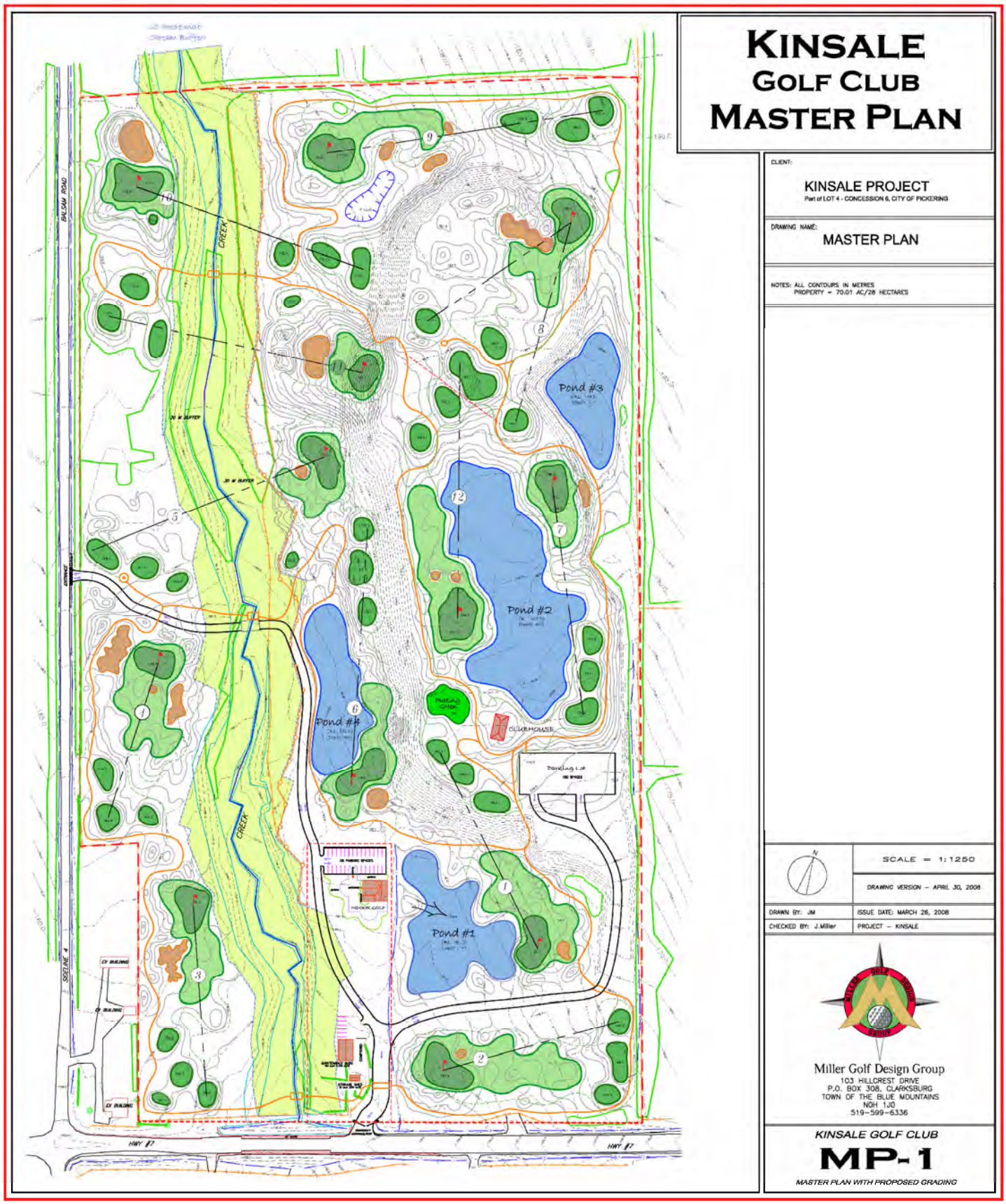
Municipal Context

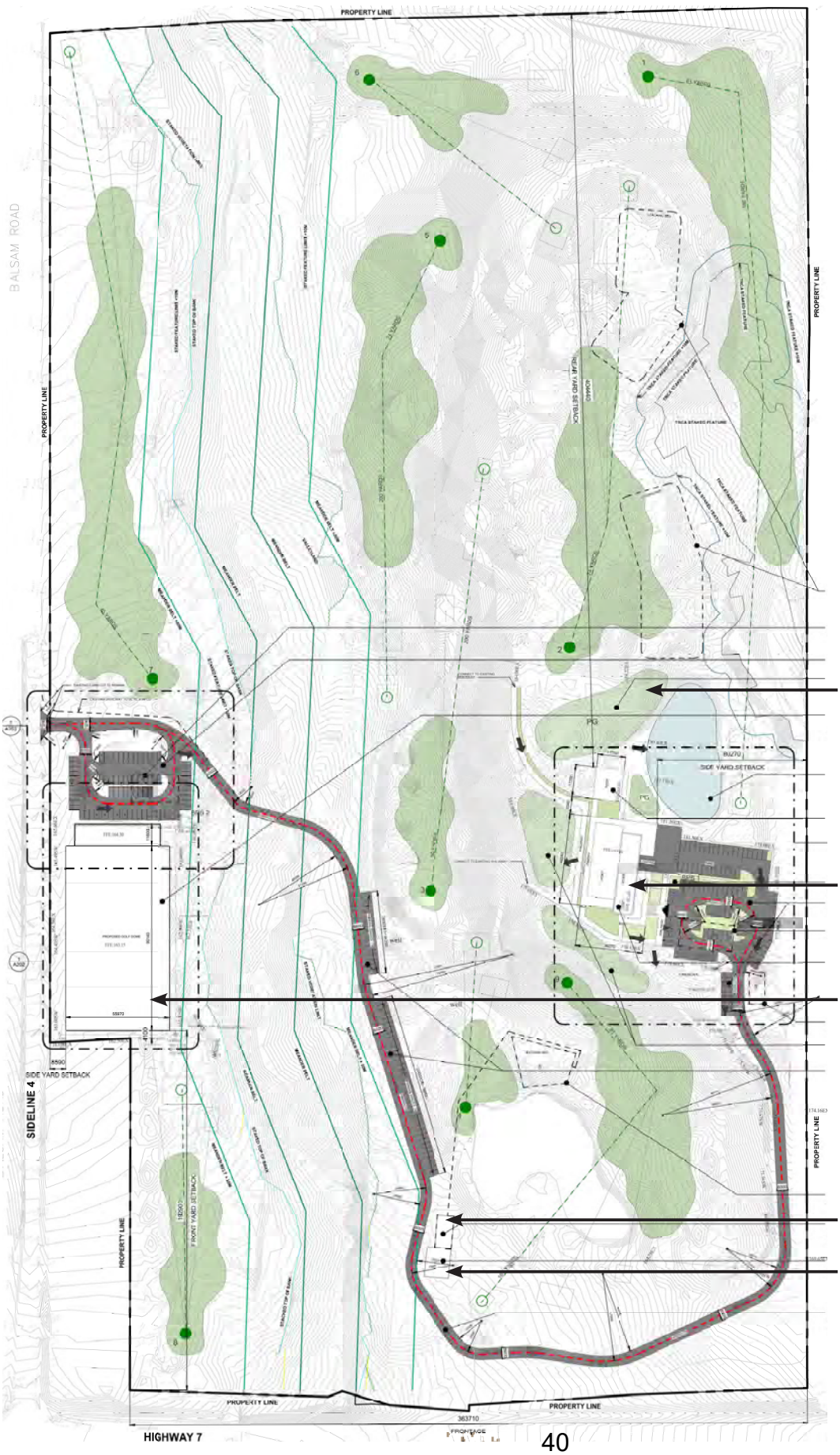


Legend

- Subject Site
- Hamlet Boundary
- River or Stream
- Roads
- Wetland
- Woodland




KINSALE
GOLF CLUB
MASTER PLAN
CLIENT:
KINSALE PROJECT
Part of LOT 4 - CONCESSION 6, CITY OF PICKERING
DRAWING NAME:
MASTER PLAN
NOTES: ALL CONTOURS IN METRES
PROPERTY = 70.01 AC/28 HECTARES
Pond #1
Pond #2
Pond #3
Pond #4
CLUBHOUSE
BALSAM ROAD
CREEK
HWY #7
SCALE = 1:1250
DRAWING VERSION – APRIL 30, 2008
DRAWN BY: JM
ISSUE DATE: MARCH 26, 2008
CHECKED BY: J.Miller
PROJECT – KINSALE
Miller Golf Design Group
103 HILLCREST DRIVE
P.O. BOX 308, CLARKSBURG
TOWN OF THE BLUE MOUNTAINS
N0H 1J0
519-599-6336
KINSALE GOLF CLUB
MP-1
MASTER PLAN WITH PROPOSED GRADING


PROPERTY LINE
BALSAM ROAD
SIDELINE 4
SIDE YARD SETBACK
FRONT YARD SETBACK
HIGHWAY 7
PROPERTY LINE
PROPERTY LINE
PROPERTY LINE
PROPERTY LINE
Proposed Putting Green
Proposed Clubhouse
Proposed Golf Dome
Existing maintenance house to remain
Proposed Maintenance Storage

Subject: FW: Regional File #: OPA 2021-002 - Comment for May 4th Meeting

From: stefan w <rentagram@gmail.com>
Sent: April 27, 2021 6:27 PM
To: clerks@durham.ca
Cc: basha <basha@bell.net>; andreka.w <andreka.w@bell.net>; Michael Woloszczuk <canekcorp@yahoo.com>; yvonne.wolos@yahoo.ca
Subject: Regional File #: OPA 2021-002 - Comment for May 4th Meeting

Re: The Regional Municipality of Durham
Notice of Complete Application and Public Meeting
Application to Amend the Durham Regional Official Plan
Regional File Number: OPA 2021-002

Dear Durham Region.

My family owns land due east of the proposed golf course redevelopment site. We are not opposed to the application and feel the redevelopment would benefit the area. Our only comment is that we would like to see some shrubbery barrier along the lot line separating the easterly parking area and parking lot roadway from our lands. Also, as the owner of the abutting lands we wish to be informed on the planning development as it proceeds. Could you please keep us in the loop by written mail and email?

Thanks so much.

Sincerely
Stefan Woloszczuk

Subject: FW: Regional File #: OPA 2021-002 - Comment for May 4th Meeting

From: basha@bell.net <basha@bell.net>
Sent: April 27, 2021 9:23 PM
To: Clerks <Clerks@durham.ca>
Cc: 'Michael Woloszczuk' <canekcorp@yahoo.com>; 'andreka.w' <andreka.w@bell.net>; 'Yvonne Woloszczuk' <yvonne.wolos@yahoo.ca>; 'stefan w' <rentagram@gmail.com>
Subject: FW: Regional File #: OPA 2021-002 - Comment for May 4th Meeting

To: Durham Region,

Re: Regional File #: OPA 2021-002 - Comment for May 4th Meeting

My name is Barbara Woloszczuk. I am forwarding to you my brother Stefan's letter. I very much agree with my brother's statements.
I would kindly request that any future correspondence be cc'd to all of us. Please check the cc addresses above.
As well, could you please confirm receipt of Stefan's letter as well as mine.
Thank you very much.

Sincerely,
Barbara Woloszczuk
416-606-4324

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 2564

The Regional Municipality of Durham Report

To:	Planning and Economic Development Committee
From:	Commissioner of Planning and Economic Development
Report:	#2021-P-15
Date:	June 1, 2021

Subject:

Public Meeting Report

Application to Amend the Durham Regional Official Plan, submitted by Kyle Petrovich on behalf of Grainboys Holdings Inc. to permit the development of a dry grain processing facility in the Township of Uxbridge.

Recommendation:

That the Planning and Economic Development Committee recommends:

A) That Commissioner's Report #2021-P-15 be received for information; and

B) That all submissions received be referred to the Planning Division for consideration.

Report:

1. Purpose

1.1 On March 30, 2021, Kyle Petrovich on behalf of Grainboys Holdings Inc. (Grainboys) submitted an application to amend the Regional Official Plan (ROP) to permit the development of a dry grain processing facility. The proposed facility would include the following uses:

- A building with a floor area of approximately 5,000 m² which would include an office, warehouse, shipping and receiving areas, and blending and milling uses, along with 14 interior storage surge bins;

- 4 exterior surge bins on concrete pads (2 for receiving, 2 for animal feed); and
- A weigh scale.

1.2 The subject site is located on the east side of York Durham Line (Regional Road 30), approximately 500 metres south of Regional Highway 47 (see Attachment #1). The site currently contains a residential dwelling. The proposed building will occupy approximately 2.4% of the subject site.

2. Background

2.1 In 2018, the proponent applied for an amendment to the Uxbridge Zoning By-law (ZBA 2018-07) to permit a similar proposal on a site located at 351 Regional Highway 47. Grainboys ultimately withdrew its application to seek a new site.

2.2 In 2019, Grainboys found a new site, and on June 8, 2020, the Township of Uxbridge Council passed By-law 2020-069 to permit the proposed uses.

2.3 The above noted by-law was subsequently appealed to the Local Planning Appeal Tribunal (LPAT). The appellant has argued that the by-law does not conform to the policies of the Township of Uxbridge and the Region of Durham Official Plans. Out of an abundance of caution, and to resolve any potential for ambiguity, the proponent has submitted applications to amend the ROP and the Township of Uxbridge Official Plan.

3. Reports Submitted in Support of the Application

3.1 A Planning Justification Report prepared by GHD, dated March 2021, has been submitted in support of the application. The report concludes that the proposed amendment meets the objectives and requirements of the Provincial Policy Statement, the Growth Plan for the Greater Golden Horseshoe, the Oak Ridges Moraine Conservation Plan, and the ROP.

3.2 A Regional Reliance Letter and Certificate of Insurance prepared by GHD, dated March 29, 2021, in support of earlier environmental work have also been submitted in support of the application.

3.3 The proposal will operate with private well and septic systems.

4. Site Description

4.1 The subject site is approximately 36.3 hectares (89.7 acres) in size and is located on the east side of York Durham Line (Regional Road 30), south of Regional Highway 47, in the Township of Uxbridge (see Attachment #1).

4.2 The majority of the site is currently farmed. The site contains a single detached residential dwelling accessed by a driveway which extends approximately 550 metres east from York Durham Line. There are small wooded areas on the site including immediately north of the dwelling and in the southeast corner of the site, adjacent to the York Durham Heritage Railway corridor. A small seasonally flooded area is located immediately north of the wooded area in the southeast portion of the site.

4.3 Uses surrounding the subject site include:

a. North – future Terra View driving range (Rural Employment Area), Regional Highway 47, and lands designated as Rural Employment Area 2 in the ROP;
b. East – rural residential and the York Durham Heritage Railway;
c. South – St. Lawrence Grains and Farm Supply and Granite Golf Club;
d. West – rural residential, York Durham Line (Regional Road 30).

4.4 Access to the site will remain from the existing driveway from York Durham Line (see Attachment #2).

5. Policy Context

Provincial Policy Statement (PPS), 2020

5.1 The PPS promotes development that is compatible with the rural landscape and can be sustained by rural service levels. The PPS also requires that development shall be appropriate to the infrastructure, which is planned or available, and avoid the need for the unjustified and/or uneconomical expansion of this infrastructure. Agricultural uses, agriculture-related uses, on-farm diversified uses and normal farm practices should be promoted and protected in accordance with provincial standards.

5.2 In rural areas, rural settlement areas shall be the focus of growth and development and their vitality and regeneration shall be promoted; however, growth and development may be directed to rural lands in accordance with certain PPS policies.

The Growth Plan for the Greater Golden Horseshoe (A Place to Grow)

5.3 A Place to Grow has identified an Agricultural System for the Greater Golden Horseshoe. Prime Agricultural Areas, which are part of this system, are to be protected for long-term use for agriculture. The subject site is designated as a Prime Agricultural Area as part of the Agricultural System.

5.4 Municipalities are encouraged to implement agri-food strategies to sustain and enhance the agricultural system by among other things, promoting the sustainability of agricultural, agri-food and agri-product businesses, and by supporting opportunities for agricultural services and assets

Oak Ridges Moraine Conservation Plan (ORMCP)

5.5 The ORMCP designates the subject site as “Natural Linkage Areas” with a small portion of the site designated as “Natural Core Areas”. The subject site is also located within the “Protected Countryside” designation of the Greenbelt Plan; however, the policies of the ORMCP prevail when a site is subject to both plans.

5.6 The purpose of Natural Linkage Areas is to maintain the ecological integrity of the Plan Area and to maintain regional-scale open space linkages between the Natural Core Areas and along river valleys and stream corridors.

5.7 Within Natural Linkage and Natural Core Areas, agriculture-related uses may be permitted, but only in designated Prime Agricultural Areas

5.8 The ORMCP defines agriculture-related uses as farm-related commercial and industrial uses that:

a. are directly related to, and compatible with, farm operations in the surrounding area and do not hinder those farm operations;
b. support agriculture;
c. benefit from being in close proximity to farm operations; and
d. provide products or services, or both, directly to farm operations as a primary activity.

Regional Official Plan (ROP)

5.9 The ROP designates the subject site as “Oak Ridges Moraine – Natural Linkage Areas” with a small section in the southeast corner of the site designated as “Oak Ridges Moraine – Natural Core Areas”. Both of the above noted designations are in the “Greenlands System” of the ROP. Within the Oak Ridges Moraine designation,

only applications for development and site alteration that conform with the ORMCP will be considered.

5.10 Natural Linkage Areas are intended to protect prime agricultural areas and provide for the continuation of agricultural and other rural land uses. Permitted uses include, but are not limited to, agricultural-related uses and small-scale industrial uses consistent with the ROP and the ORMCP.

5.11 Natural Core Areas are intended to maintain, improve and restore the ecological integrity of the Moraine as a whole.

5.12 In accordance with the provisions of A Place to Grow, the subject site is designated Prime Agricultural Areas within the Provincial Agricultural System. This designation supersedes the above noted ROP designation and includes agriculture-related uses as a permitted use.

5.13 According to Schedule 'B' – Map 'B2' of the ROP, the subject site is located in an area of High Aquifer Vulnerability. The proposed use would fall into the Group 3 – Low Risk Land Uses (processed foods and meats) category.

5.14 According to Schedule 'B' – Map 'B1b' of the ROP, there are Key Natural Heritage and Hydrologic Features (KNHHF) within and adjacent to the subject site, including the Goodwood/Glasgow Wetland Complex. It is the Region of Durham's understanding that the Toronto and Region Conservation Authority (TRCA) has requested that the proponent submit an Environmental Impact Study (EIS) demonstrating that the proposed development will not have an adverse effect on the KNHHF and their functions.

6. Proposed Official Plan Amendment

6.1 The proposed Regional Official Plan amendment is proposing to permit, as an exception, the development of a dry grain milling, blending and storage facility, including accessory sales of finished products serving farm operations and grain suppliers. Staff believe these uses are already permitted by the current ROP, but as noted in Paragraph 2.3, this application has been filed out of an abundance of caution in preparation for the upcoming LPAT hearing.

7. Consultation

7.1 The application has been circulated to the Ministry of Municipal Affairs and Housing, the Township of Uxbridge, the Town of Whitchurch-Stouffville, the Regional Works Department, the Regional Health Department, Durham Region Transit, Ministry of Transportation, the Lake Simcoe Region Conservation Authority, Durham Agricultural Advisory Committee, Hydro One, Rogers, Bell Canada, Enbridge Gas and Enbridge Pipelines and Ontario Power Generation.

7.2 At the time of writing this report, comments have been received by Canada Post, the Durham District School Board, Durham Catholic School Board, Enbridge Gas and Enbridge Pipelines, and Ontario Power Generation, all indicating no concern with the proposed amendment.

8. Public Participation

8.1 A “Notice of Public Meeting” regarding this application has been advertised in the “Uxbridge Times Journal” and the “Stouffville Sun Tribune and mailed to all property owners within 120 metres of the proposed amendment. This report was also made available to the public prior to the meeting.

8.2 Anyone who attends or participates in a public meeting may present an oral submission and/or provide a written submission to the Planning and Economic Development Committee on the proposed amendment. Also, any person may make written submissions at any time before Regional Council makes a decision.

8.3 If a person or public body does not make oral submissions at a public meeting or does not make written submissions before the proposed official plan amendment is adopted, the person or public body:

a. Is not entitled to appeal the decision of the Region of Durham to the Local Planning Appeal Tribunal (LPAT) (formerly the Ontario Municipal Board); and
b. May not be added as a party to the hearing of an appeal before the LPAT, as grounds to add the person or public body as a party.

8.4 Anyone who wants to be notified of Regional Council’s decision on the proposed ROP Amendment must submit a written request to:

Brian Bridgeman, MCIP, RPP
Commissioner of Planning and Economic Development
Planning and Economic Development Department
Regional Municipality of Durham
Durham Regional Headquarters
600 Rossland Road East
Whitby, ON, L1N 6A3

9. Future Regional Council Decision

9.1 The Planning and Economic Development Committee will consider the proposed ROP Amendment at a future meeting and will make a recommendation to Regional Council. Council's decision will be final unless appealed.

9.2 All persons who make oral submissions, or have requested notification in writing, will be given notice of the future meeting of the Planning and Economic Development Committee and Regional Council at which the subject application will be considered.

10. Previous Reports and Decisions

10.1 There are no previous reports on this matter.

11. Relationship to Strategic Plan

11.1 Economic Prosperity and Service Excellence – In the processing of Regional Official Plan Amendment applications, the objective is to ensure responsive, effective and fiscally sustainable service delivery.

12. Attachments

Attachment #1: Location Sketch

Attachment #2: Site Plan

Respectfully submitted,

Original signed by

Brian Bridgeman, MCIP, RPP
Commissioner of Planning and
Economic Development

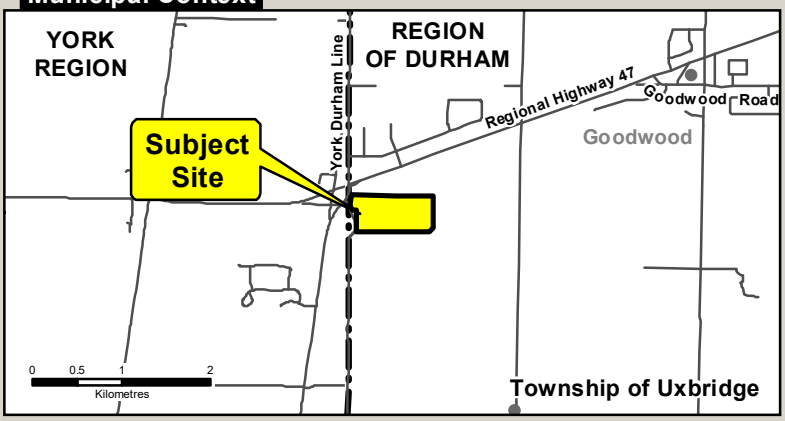
Recommended for Presentation to Committee

Original signed by

Elaine C. Baxter-Trahair
Chief Administrative Officer

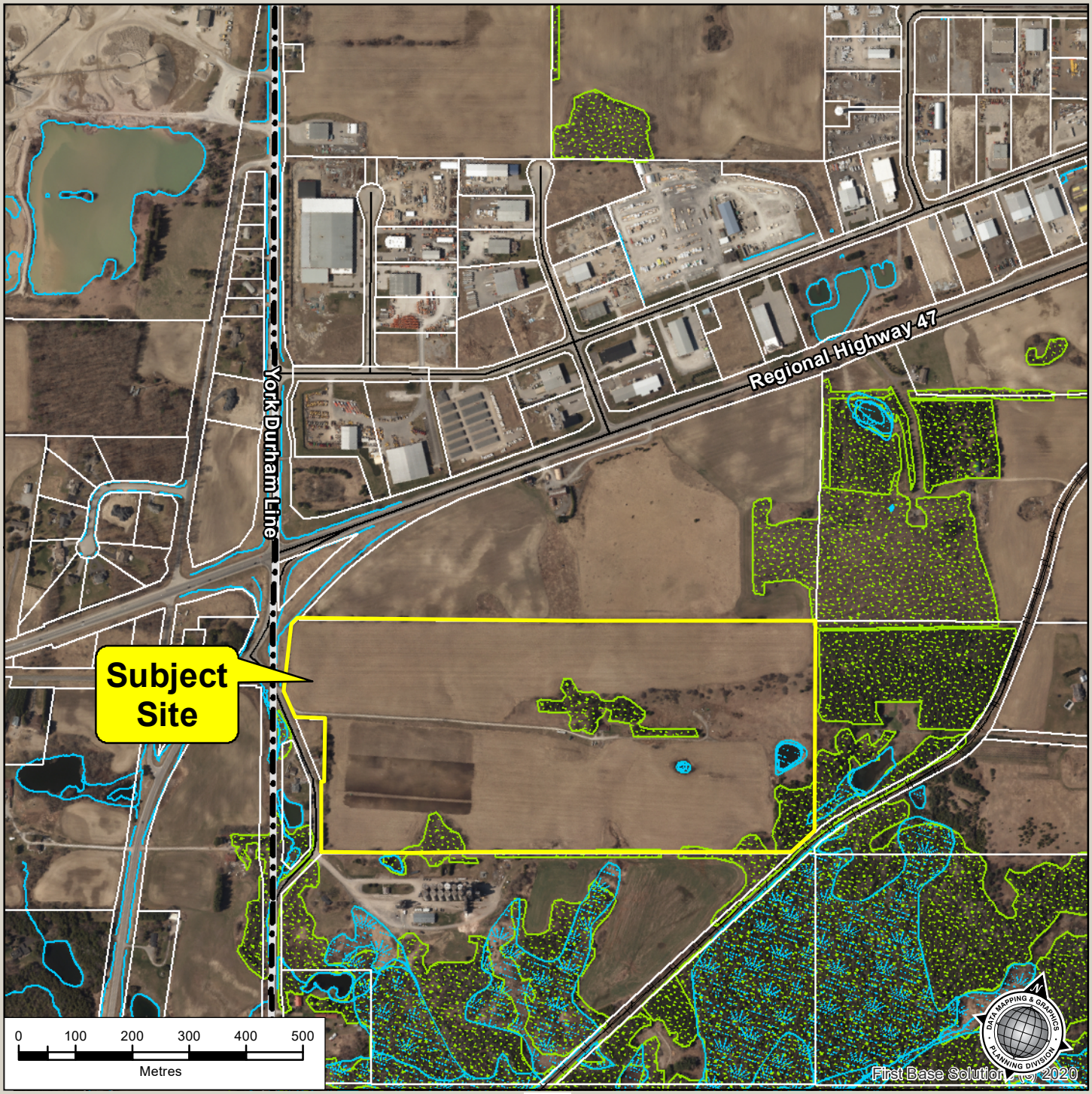
Attachment #1
Commissioner's Report: 2021-P-15
File: OPA 2021-004
Municipality: Township of Uxbridge

Municipal Context



Legend

- Subject Site
- Municipal Boundary
- River or Stream
- Roads
- Wetland
- Woodland



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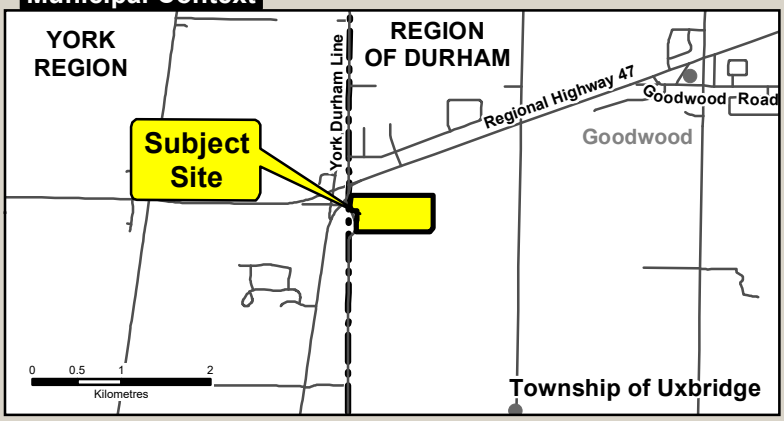
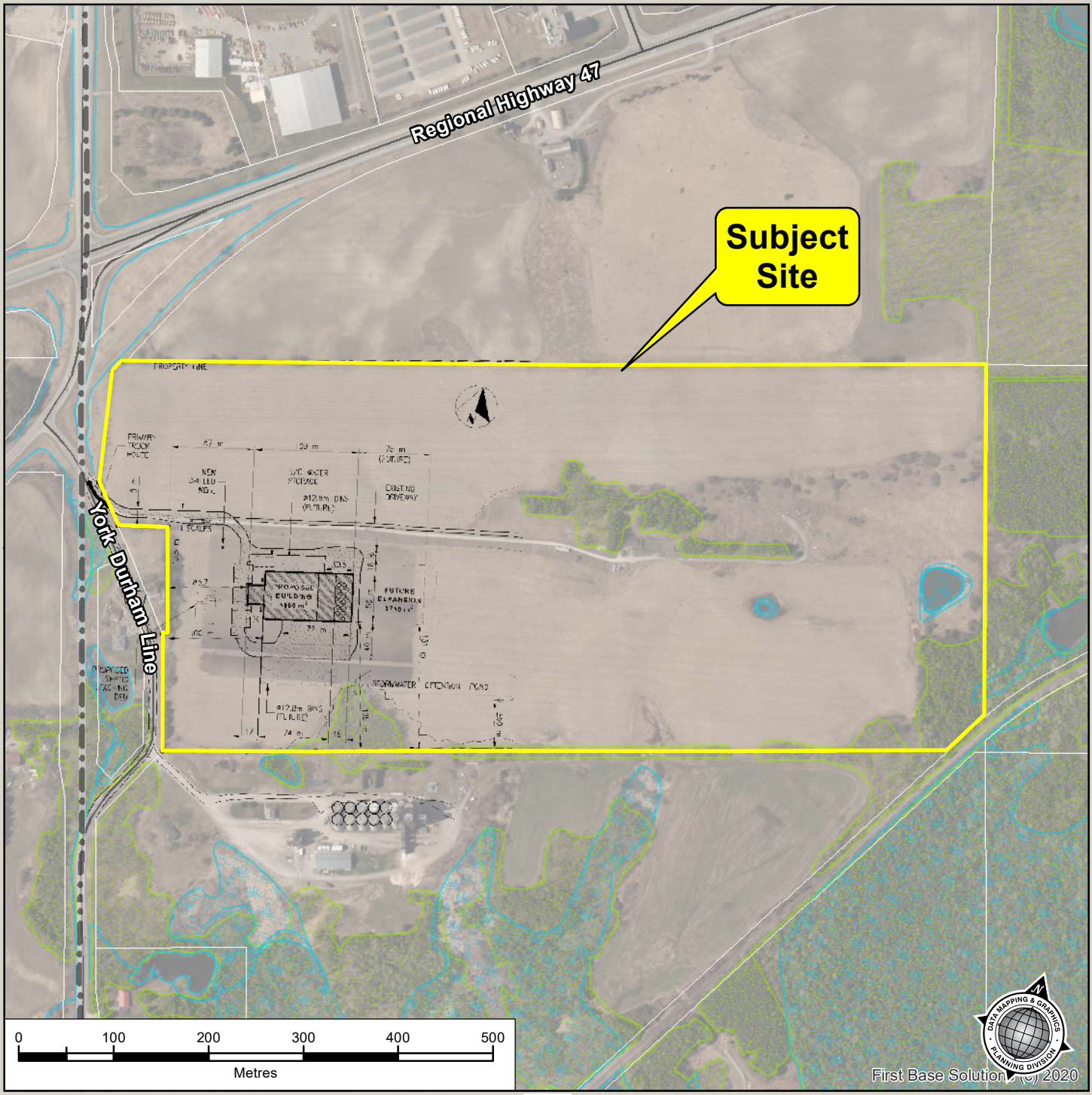
Attachment #2
Commissioner's Report: 2021-P-15
File: OPA 2021-004
Municipality: Township of Uxbridge

Municipal Context



Legend

- Subject Site
- Municipal Boundary
- River or Stream
- Roads
- Wetland
- Woodland



Data Sources:
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If this information is required in an accessible format, please contact 1-800-372-1102 ext. 2564

The Regional Municipality of Durham Report

To:	Planning and Economic Development Committee
From:	Commissioner of Planning and Economic Development
Report:	#2021-P-16
Date:	June 1, 2021

Subject:

Carruthers Creek Watershed Plan Update, File D07-17-01

Recommendation:

That the Planning and Economic Development Committee recommends to Regional Council:

A) That the Carruthers Creek Watershed Plan contained in Attachment #2 be endorsed.

B) That a copy of this report be forwarded to the City of Pickering, the Town of Ajax, the Ministry of Municipal Affairs and Housing, and the Toronto and Region Conservation Authority for further distribution to the Carruthers Creek Watershed Plan Update interested parties list.

Report:

1. Purpose

1.1 The purpose of this report is to present the Carruthers Creek Watershed Plan Update and to seek Council's endorsement of the plan.

2. Background

2.1 A watershed refers to an area that is drained by a river and its tributaries. Watershed planning is required by Provincial Plans, including the Oak Ridges Moraine Conservation Plan, the Greenbelt Plan, and the Growth Plan, to identify and protect natural resources and areas, to protect the quantity and quality of

water resources, and to help inform future land use planning and infrastructure decisions. The Regional Official Plan (ROP) also recognizes the preparation and implementation of Watershed Plans as an effective planning tool in the protection of natural heritage and water resources.

2.2 Watershed planning has traditionally been undertaken by conservation authorities. In southern Ontario, particularly in the Greater Golden Horseshoe area, conservation authorities have extensive experience and expertise in watershed management and watershed planning.

2.3 Watershed planning provides a framework for establishing goals, objectives, and direction for the protection of water resources, the management of human activities, land, water, aquatic life, and resources within watersheds. It also provides an opportunity for the assessment of cumulative, cross-jurisdictional and cross-watershed impacts.

2.4 Watershed plans are not land use plans, nor would Council's position on a watershed plan constitute a land use planning decision. However, as required by Provincial Plans, the data, scientific analysis, modelling, scenario evaluation, and management recommendations generated through a watershed planning process are used by municipalities to help inform future land use planning and infrastructure decisions.

2.5 The Carruthers Creek watershed is located within the City of Pickering and the Town of Ajax, and is on the eastern edge of the Toronto and Region Conservation Authority's (TRCA) jurisdiction. The watershed is relatively small, at approximately 3,840 hectares in size, ranging from 2 to 3 kilometres in width, and has a total length of 18 kilometres. The headwaters of the Carruthers Creek form to the south of the Oak Ridges Moraine, in the City of Pickering, and the creek enters Lake Ontario at Carruthers Marsh in the Town of Ajax. A location sketch is provided in Attachment #1.

2.6 The watershed is mainly rural north of Highway 7 and is mainly urbanized south of Taunton Road. Between Highway 7 and Taunton Road, lands are characterized by a mix of rural, estate residential, recreational and related uses, and are in the Protected Countryside designation of the provincial Greenbelt Plan. There are approximately 41,000 residents within the boundaries of the watershed.

2.7 Policy 7.3.11 p) of the ROP applies to lands outside of the Greenbelt in northeast Pickering, within the headwaters of Carruthers Creek Watershed and includes a small portion of the East Duffins Watershed. The policy states: "*where a*

comprehensive review of this Plan includes consideration of lands for Urban Area expansion within the City of Pickering east of the Pickering Airport lands, outside of the Greenbelt, the following additional matters will be assessed and evaluated at that time: ... (ii) the preparation and completion of a watershed plan update for the East Duffins and Carruthers Creek watersheds."

2.8 In accordance with this policy, the completion of this watershed plan will allow for the future consideration of potential development in northeast Pickering. It does not constitute a decision on whether the lands should be developed, since that is a matter that will be addressed through the Region's Municipal Comprehensive Review process.

2.9 The Carruthers Creek Watershed Plan Update was designed to meet or exceed all Provincial requirements, while satisfying Policy 7.3.11 p) of the ROP.

2.10 A small portion of the East Duffins Watershed Plan was included as part of the study area, given that only a small portion of that watershed is outside of the Greenbelt Plan and that substantial modelling had already been undertaken in the consideration of the development in Seaton. Insights gained through the Carruthers Creek Watershed Plan Update could then be applied to the adjacent East Duffins watershed area.

2.11 The Carruthers Creek Watershed Plan Update took place over two phases. The Region contracted with TRCA, in a consulting capacity, to lead the technical work and coordinate the public consultation.

2.12 Phase 1 was initiated in June of 2015 and culminated in seven peer reviewed technical reports that characterized the watershed's existing conditions. Phase 2 was initiated in December of 2017 and included public consultation, further technical reports, watershed scenario analyses, and management recommendations. A draft Watershed Plan, prepared in collaboration with Town of Ajax and City of Pickering staff, was released for public review and comment on March 13, 2020.

2.13 As a result of the COVID-19 global pandemic, in-person public consultations scheduled for April 30, 2020 were postponed. At its meeting of December 16, 2020, Regional Council authorized staff to re-initiate the public consultation process. In early 2021, public engagement resumed through the use of online platforms.

The final date for agencies and members of the public to provide comments on

the draft Carruthers Creek Watershed Plan Update was March 19, 2021.

3. Previous Reports and Decisions

3.1 Several Commissioner's Reports have been prepared advising of project status updates and at the completion of key project milestones:

- On February 26, 2021 Commissioner's Report #2021-INFO-22 provided an update on the virtual Public Open House meetings held on February 1 and February 4, 2021.

- On December 1, 2020 Commissioner's Report #2020-P-28 recommended that staff be authorized to resume public consultation and schedule two virtual Public Open Houses to advance the completion of the Carruthers Creek Watershed Plan Update.

- On April 3, 2020 Commissioner's Report #2020-INFO-28 advised that the scheduled Public Open House to present the draft Carruthers Creek Watershed Plan to members of the public was being postponed as a result of the COVID-19 pandemic.

- On March 13, 2020 Commissioner's Report #2020-INFO-18 advised of the release of the draft Carruthers Creek Watershed Plan Update for public review and comment.

- On December 6, 2019 Commissioners Report #2019-INFO-91 advised of activities undertaken during the second year of Phase 2 of the Carruthers Creek Watershed Plan update, including results from stakeholder consultation and Public Open Houses on the draft Management Recommendations.

- On May 7, 2019 Commissioner's Report #2019-P-25 advised of activities undertaken during the first year of Phase 2 of the Carruthers Creek Watershed Plan Update.

- On July 22, 2018 Commissioner's Report #2018-INFO-102 provided Council with addition details including key milestones and anticipated meetings and presentation dates as part of the Phase 2 Communications and Consultation Strategy.

- On April 13, 2018 Commissioner's Report #2018-INFO-54 provided an overview of the Work Plan and Communications and Consultation Strategy to be implemented as part of the Phase 2 of the Carruthers Creek Watershed Plan Update.

- On October 4, 2017 Commissioner's Report #2017-COW-218 advised of the completion of Phase 1 of the Carruthers Creek Watershed Plan Update, including seven peer-reviewed Technical Reports that characterize the watershed's existing conditions.

- On November 2, 2016 Commissioner's Report #2016-COW-61 recommended that the Toronto and Region Conservation Authority proceed to complete the Carruthers Creek Watershed Plan Update subject to a number of specific conditions related to reporting process and a formalized peer review approach.

- On July 29, 2016 Commissioner's Report #2016-INFO-4 provided an update on activities undertaken during the first year of the Carruthers Creek Watershed Plan Update.

- On March 10, 2015 Commissioner's Report #2015-P-16 recommended that staff be authorized to engage the Toronto and Region Conservation Authority to update the Carruthers Creek Watershed Plan.

4. Watershed Plan Overview

4.1 The final Watershed Plan (Attachment #2) is an innovative, well organized, and easy to read document that establishes the current watershed conditions and outlines a framework for improving, enhancing and restoring watershed health. Supported by extensive technical analysis and evaluation and peer reviewed by third party experts , the Watershed Plan applies the latest in conservation planning and science to support a comprehensive management framework. The overall approach and collaborative process used to develop the Carruthers Creek Watershed Plan Update constitutes an industry best practice and will be used as

a model by TRCA to update Watershed Plans throughout its jurisdiction.

4.2 The Watershed Plan opens with a compelling vision statement that "*Carruthers Creek watershed is a healthy and resilient natural system that is managed through partnerships to balance resource protection with human activity. Sound science and best management practices will protect and restore ecosystem functions, protect watershed residents from natural hazards like flooding, and maintain our natural heritage and water resources for present and future generations*."

4.3 The overall organization of the Watershed Plan consists of nine sections. A brief summary is provided below:

a. **Introduction and Background:** provides an overview of the rationale and policy basis for watershed planning, the local context and considerations, and key partners and stakeholders.
b. **Water Resources and Natural Heritage Systems:** describes the key components of the Water Resource System and Natural Heritage System, and how each system was mapped.
c. **Existing Watershed Conditions:** describes the current watershed conditions based on technical evaluations undertaken in Phase 1 of the study. Four key issue areas, being the Water Resource System, the Natural Heritage System, Water Quality and Natural Hazards (including flooding) are described and rated against benchmark indicators.
d. **Future Watershed Conditions:** describes the three future scenarios that were modelled to predict the response of the watershed to future land use change, the results of the modelling analyses, and the implications of these scenarios.
e. **Management Framework:** outlines what needs to be done to protect, enhance and restore the watershed's health. The management framework includes 35 recommendations divided into three goal areas of: Land Use, Water Resource System, and Natural Heritage System. A separate sub-section (5.4) details the management recommendations that would apply, should a future Settlement Area Boundary Expansion be allowed within Northeast Pickering.
f. **Monitoring and Evaluation:** details the indicators, frequency, and methods in which monitoring should occur. The performance of the Watershed Plan implementation will need to be evaluated on an ongoing basis.

g. **Maps, Glossary, and References:** These three sections contain supporting resources in the form of maps, a glossary of terms, and references.

5. A Consultative and Focused Approach

5.1 Since project initiation, the Carruthers Creek Watershed Plan Update has been a highly consultative and collaborative process that exceeds legislative requirements and incorporates a variety of best practices. Below is a summary of consultation activities that took place over the course of the project:

a. Dedicated Project Website: **Over 2,400 visits**
b. Project information postcards: **Over 2,000 distributed**
c. Online survey: **Over 70 participants**
d. Project specific email: **Continuously maintained and monitored since October 2017.**
e. Popup displays at public events: **7 events**
f. Stakeholder Workshops (environmental non-government organizations, golf courses, etc.): **Hosted 3 workshops**
g. Update Presentations to Municipal Committees of Council: **Durham 2, Ajax 3, Pickering 2, TRCA Board of Directors 4**
h. Public Information Centres: **4 (in person on October 8, 2019 and October 10, 2019; virtual on February 1, 2021 and February 4, 2021)**
i. TRCA, Ajax, Pickering and TRCA staff-to-staff meetings: **8**
j. Presentations to advisory committees (Durham Agricultural Advisory Committee, Durham Environmental Advisory Committee, Ajax Environmental Advisory Committee, etc.): **6**
k. Commissioner's Reports providing project updates to Durham Planning and Economic Development Committee / Committee of the Whole and Council with circulation to Ajax and Pickering: **12**
l. Submissions and comments received on the draft Carruthers Creek Watershed Plan Update in 2020/2021: **27**

5.2 In addition to the above, over the course of the spring and summer of 2020, the Region received 182 similar emails, each containing identical language, indicating that development should not be permitted in the headwaters. These submissions were also forwarded to TRCA for consideration, and a standardized response clarifying the role of watershed planning within Ontario's land use planning system. All individuals that made a submission were also invited to subscribe as an

interested party, so that they could be notified of future project updates and consultation opportunities.

5.3 The opportunity to review and comment on the draft Carruthers Creek Watershed Plan Update remained open for over a year, since its initial release on March 13, 2020 until March 19, 2021. During this time, a total of 27 submissions were received with specific comments of the draft Watershed Plan. Both the City of Pickering and Town of Ajax prepared comments on the draft Carruthers Creek Watershed Plan Update which were reported through, and considered by, their respective Committees and Councils. In their staff report, City of Pickering staff congratulated the TRCA on the preparation of the Watershed Plan and the overall quality of the document, and stated that staff generally agree with the majority of the Management Recommendations. The Town of Ajax staff report acknowledged efforts to address their staff comments and thanked TRCA for their efforts to engage the Town in the preparation of the Watershed Plan.

5.4 In their more detailed comments, the City of Pickering staff report identified areas for clarification and sought additional language to confirm that there is flexibility in how the identified enhanced Natural Heritage System will be implemented. In the Town of Ajax staff report, concerns were reiterated about the potential for downstream flooding as a result of development in the headwaters, funding sources for any required flood mitigation, the sequencing and timing of further studies and evaluations, and consistency in approach for the protection of the Natural Heritage System. Further meetings and consultation with staff from Ajax and Pickering took place in early 2021 to address these comments.

5.5 Generally speaking, the comments received by stakeholders on the draft Carruthers Creek Watershed Plan Update have been diverse. Stakeholders representing development interests in northeast Pickering have sought additional flexibility in the policy language, while the majority of other comments have sought the explicit prohibition of development in northeast Pickering. Other themes in the comments were:

a. concerns about potential development in the headwaters.
b. questions/concerns about the use and scope of scenario modelling.
c. appropriate treatment and protection of the Natural Heritage System.
d. concerns and appropriate solutions to existing and future flooding issues.
e. support for the Watershed Plan in general.

5.6 All comments have been reviewed and considered by TRCA staff and also shared/reviewed with staff from the Region, the City of Pickering, and the Town of Ajax. Where appropriate, the Watershed Plan was updated in response to comments. A summary of each comment and a description of how TRCA staff have responded can be found in Attachment #3.

6. Commentary

Scenario Modelling

6.1 A key element of the Watershed Plan is scenario modelling. Scenario modelling is a tool that is used to evaluate how a watershed would react under different future land use conditions. It is not meant to analyze the full spectrum of potential future land uses that may occur throughout the watershed, nor is it intended to represent any particular development or special interest that may exist. Rather, it is a tool that is meant to provide an understanding of a broad range of potential impacts.

6.2 The scenarios do not implicitly "build in" specific mitigation measures (e.g. specific stormwater management approaches) that may be proposed by any particular land use interest. Rather, mitigation approaches have been included for each land use scenario as part of the management recommendations to protect, enhance and restore the watershed's health.

6.3 Three scenarios were modelled as part of the Carruthers Creek Watershed Plan Update:

- Scenario 1 assumed the "build out" of the watershed as permitted by current Official Plans to the year 2031.
- Scenario 2 assumed the same "build out" as Scenario 1, but with an enhanced Natural Heritage System throughout the watershed.
- Scenario 3 assumed urbanization of northeast Pickering with the same enhanced Natural Heritage System as shown in Scenario 2.

6.4 Through consultation, a number of comments were received regarding the three scenarios. Some comments noted preferences on which scenario should be implemented. Other comments asked that more scenarios be evaluated. As noted above, scenario modelling was undertaken to inform watershed management recommendations, and the evaluation of a myriad of alternative land uses or arrangements would not affect the management recommendations.

Addressing the Potential for Settlement Area Boundary Expansion

6.5 As of part of “Envision Durham”, the Region’s Municipal Comprehensive Review (MCR) of the ROP, the detailed Land Needs Assessment (LNA) work is underway to comprehensively assess the Region’s urban structure, its intensification potential, designated greenfield areas, and future urban land needs to accommodate the Province’s population and employment forecasts under the Growth Plan. Upon the completion of the LNA, a determination will be made as to whether additional urban land will be required through Settlement Area Boundary Expansion to accommodate forecasted growth. If additional urban land is required, then candidate areas (i.e. areas outside of existing urban areas that are also outside of the Greenbelt Plan area) would be evaluated.

6.6 The lands within northeast Pickering including the headwaters of the Carruthers Creek are located outside of the Greenbelt Plan area and are a candidate area for potential Settlement Area Boundary Expansion. Staff will report to Planning and Economic Development Committee on the results of the LNA when the analysis is complete. Should the LNA determine that additional urban land is required to accommodate the province’s population and employment forecasts, and should Council decide that it is appropriate to allow development within this area, then that decision would be provided as part of the Region’s position on the new Regional Official Plan. The Minister of Municipal Affairs would then render a decision. If development is permitted, detailed mitigation strategies, community design elements and/or other features to address potential watershed impacts would be developed during the detailed planning stages (e.g. secondary plan, subdivision), but only after the scope of any potential land use change has been determined.

Existing and Future Flooding Issues

6.7 As previously noted, the Watershed Plan Update has modelled implications associated with potential urban development within northeast Pickering. Throughout the update process, concerns related to existing downstream flooding issues and the potential risk of increased downstream flooding from urban development in the headwaters have been expressed by members of the public and other stakeholders.

6.8 Scenario modelling confirmed that urbanization in northeast Pickering, without additional mitigation or flood controls, will increase peak flows in the lower reaches of the watershed. The predicted increased rate of peak flows is based on broad assumptions about future urban land use and would be subject to

change/refinement if a more detailed land use plan and the extent of urban development was determined in the future.

6.9 For example, TRCA staff have advised that downstream flood impacts could be managed through the use of regional flood controls[1]. Specific mitigation measures, designs and other solutions, would be detailed through subsequent planning studies and Environmental Assessment processes.

Natural Heritage System

6.10 Natural Heritage Systems are defined in provincial policy as being made up of natural features and areas, and the linkages intended to provide connectivity between such features and areas, and support natural processes which are necessary to maintain biological and geological diversity. The system can include:

- various key natural heritage features (significant woodlands, significant valleylands, significant wildlife habitat, wetlands, etc.),
- key hydrologic features (permanent streams, intermittent streams, lakes, etc.),
- federal and provincial parks and conservation reserves,
- other natural heritage features and areas,
- lands that have been restored or have the potential to be restored to a natural state,
- associated areas that support hydrologic functions, and
- working landscapes that enable ecological functions to continue.

6.11 Traditionally, land use planning exercises would seek to protect environmental features, and a vegetation protection zone (buffer) through a feature-based study. However, in order to achieve the minimum amount of natural cover necessary to maintain long-term ecosystem resilience and sustainability, an “enhanced” or “targeted” Natural Heritage System was identified, to include both existing natural heritage features and proposed enhancement areas, based on overall natural cover thresholds for the watershed, informed by TRCA and federal guidance[2].

1 Regional flood controls refer to stormwater management infrastructure that is designed to manage regional storm events (i.e. storms of Hurricane Hazel magnitude). TRCA’s acceptance of Regional Control as a solution would require provincial approval, updated hydrology modelling, the establishment of regional control feature designs and standards, and support from the host municipality.
2 TRCA *Terrestrial Natural Heritage System Strategy* (2007) and Environment and Climate Change Canada’s *How Much Habitat is Enough?* (2031, Third Edition).

6.12 This approach is consistent with watershed plans undertaken elsewhere in Durham Region including updates to the Lynde Creek, Oshawa Creek, Black/Harmony/Farewell Creek and Bowmanville/Soper Creek Watershed Plans in 2020 by the Central Lake Ontario Conservation Authority. The targeted Natural Heritage System in CLOCA's updated Watershed Plans were created using similar modelling techniques/methodologies as the approach undertaken for the Carruthers Creek Watershed Plan, and similarly represent the long-term natural coverage area required to achieve minimum ecosystem resilience.

6.13 A number of comments were received indicating agreement and support for the implementation of the enhanced Natural Heritage System identified in the Carruthers Creek Watershed Plan Update. However, a number of detailed submissions were also received outlining concerns with how the enhanced Natural Heritage System has been identified and treated in the management recommendations. Comments were also received asking how the Region will implement the enhanced Natural Heritage System through the MCR and as part of any future ROP.

6.14 Regional Planning staff are considering how to appropriately implement Natural Heritage Systems, including the recognition of enhanced/targeted components through the MCR process. The exact boundaries of the Natural Heritage System could be refined or adjusted through Regional and Area Municipal Official Plans, provided that a supporting study/analysis demonstrates how the same overall ecological benefit would be maintained or improved.

6.15 A management recommendation that supports this general approach has been included in the final Watershed Plan to provide flexibility in how the Region and the Area Municipalities should implement the enhanced Natural Heritage System through their respective land use planning instruments.

7. Relationship to Strategic Plan

7.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:

a. Goal 1: Environment and Sustainability – The completion of the Carruthers Creek Watershed Plan Update will contribute to the protection, preservation and restoration of the natural environment, including greenspaces, waterways, parks, trails and farmlands (1.3).

b. Goal 1: Environment and Sustainability – The completion of the Carruthers Creek Watershed Plan Update will contribute to demonstrating leadership in sustainability and addressing climate change (1.4).

8. Conclusion and Next Steps

8.1 The Carruthers Creek Watershed Plan Update, prepared by TRCA in collaboration with Town of Ajax and City of Pickering staff, is now complete. The findings and management recommendations provide a strong basis for protection and enhancement of the watershed. The management recommendations are intended to be used to inform future land use planning processes, including the Region's MCR as well as studies and planning processes administered by the affected local municipalities. It is therefore recommended that Regional Council endorse the Carruthers Creek Watershed Plan Update, 2021.

8.2 Upon Regional Council's endorsement of the Carruthers Creek Watershed Plan Update, the Plan will proceed to the TRCA Board of Directors for consideration. Following the TRCA Board of Directors consideration, the Plan will be considered final, and available for use by the Region, the Area Municipalities, and any other interested parties.

9. Attachments

Attachment #1: Location Map: Carruthers Creek Watershed Area

Attachment #2: Final Carruthers Creek Watershed Plan Update, April 2021

Attachment #3: Summary and TRCA staff response to comments received on the draft Carruthers Creek Watershed Plan

Respectfully submitted,

Original signed by

Brian Bridgeman, MCIP, RPP
Commissioner of Planning and
Economic Development

Recommended for Presentation to Committee

Original signed by

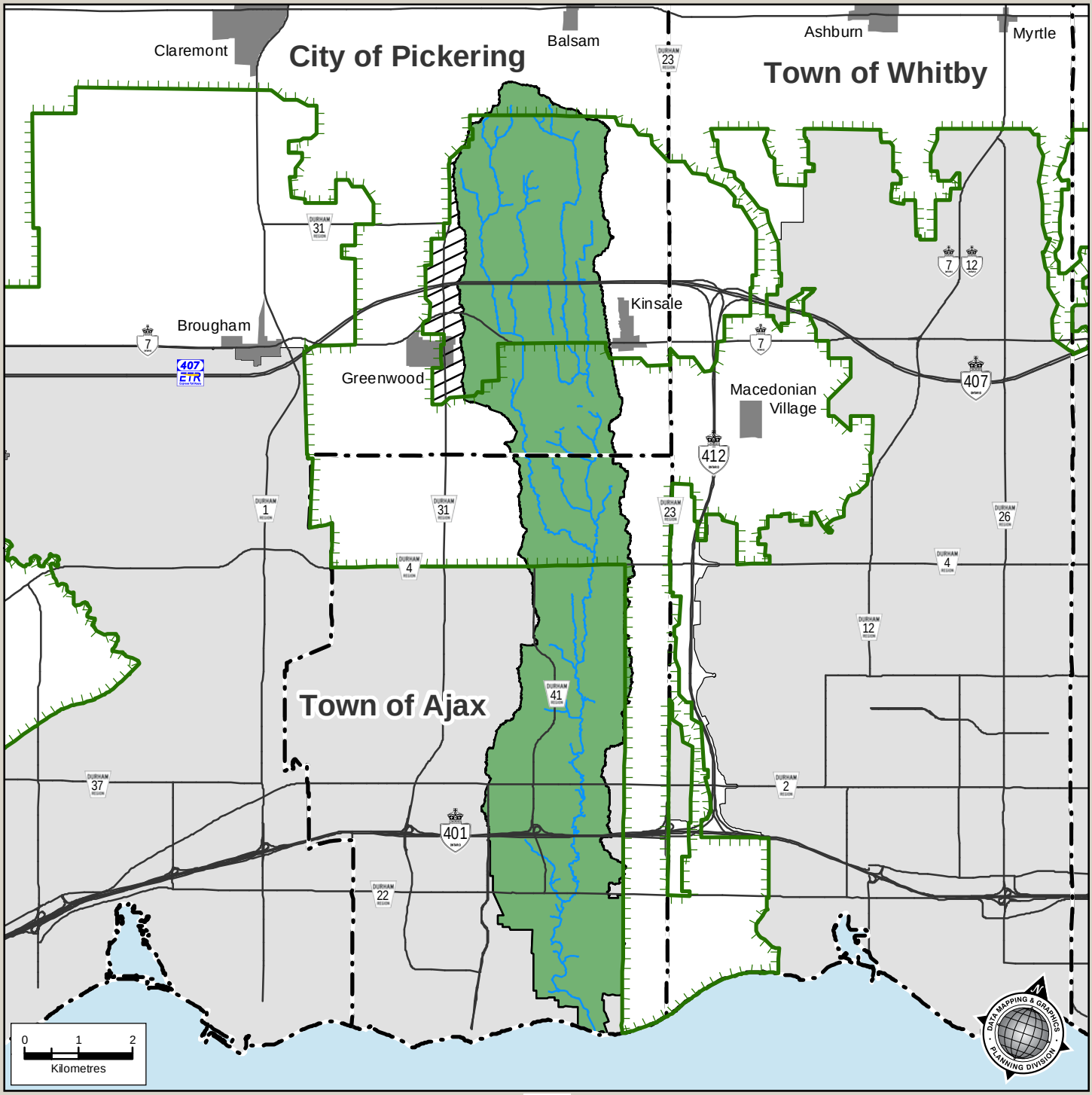
Elaine C. Baxter-Trahair
Chief Administrative Officer

Attachment #1
Carruthers Creek Watershed
Commissioner's Report: 2021-P-16
Municipality: City of Pickering/Town of Ajax

Municipal Context

Legend

- Greenbelt Boundary
- Major Road
- Watercourse
- Carruthers Creek Watershed Boundary
- Portion of East Duffins included in Study Area
- Hamlet
- Municipal Boundary
- Urban Area
- Waterbody



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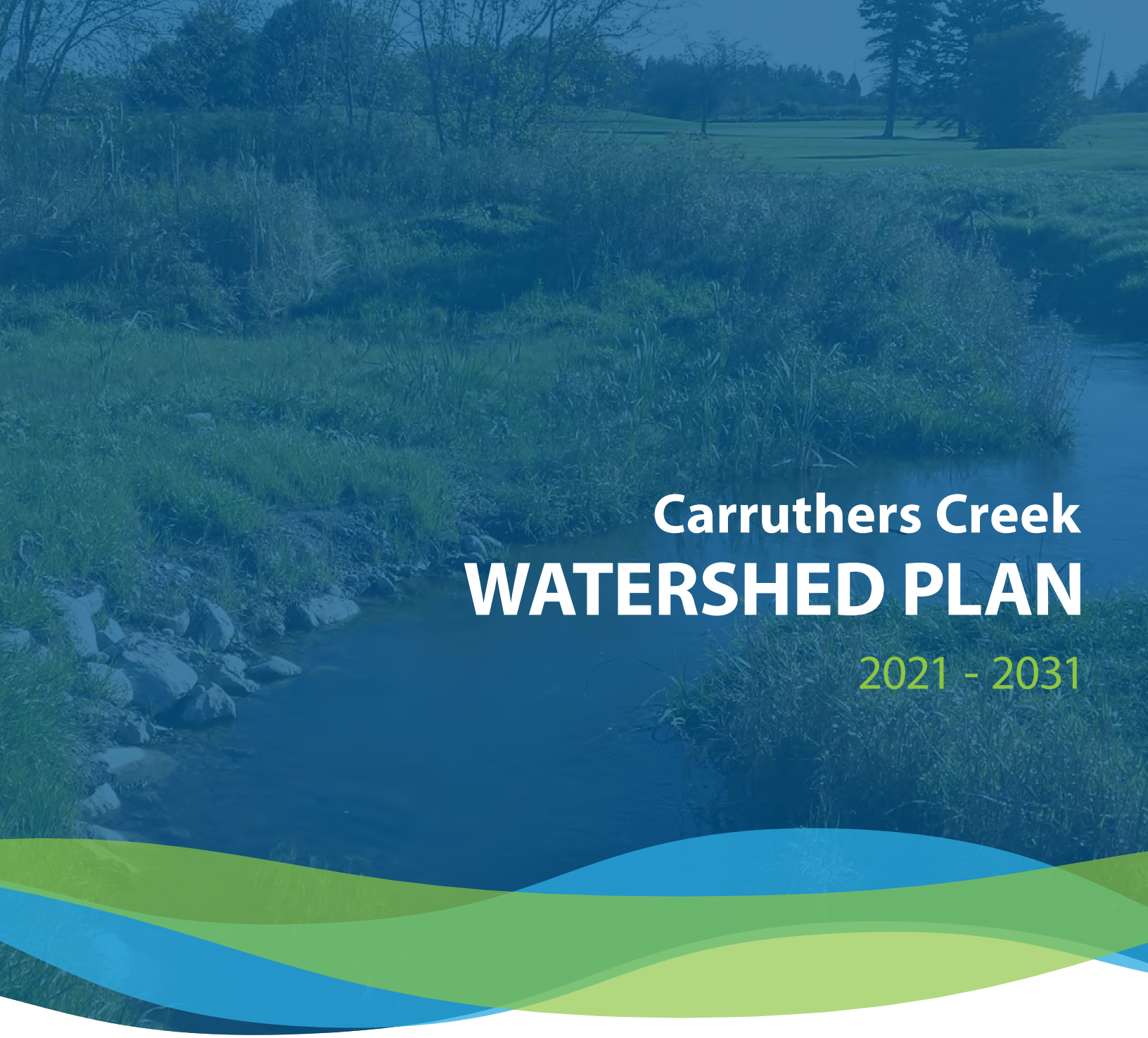
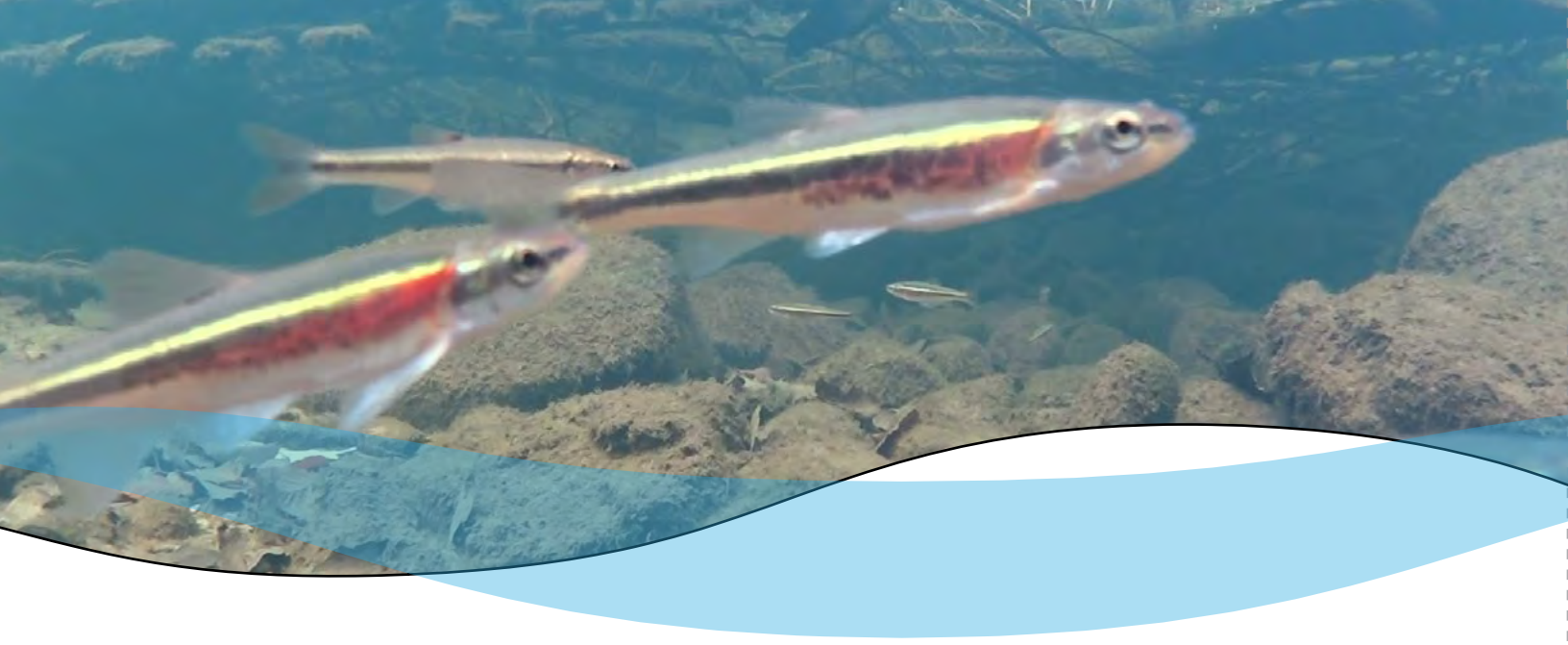


Carruthers Creek
WATERSHED PLAN
2021 - 2031

Developed in collaboration with
the **Town of Ajax** and **City of Pickering**

DURHAM REGION

Toronto and Region Conservation Authority



Executive Summary

A watershed is an area that is drained by a river and its tributaries. Healthy watersheds provide numerous ecosystem services: from sustaining drinking water, supporting biodiversity, reducing flood and erosion hazards, protecting the quality and quantity of water, and replenishing aquifers. Due to the importance of healthy watersheds, they merit collaborative efforts to ensure their long-term sustainability.

The purpose of a watershed plan is to understand the current conditions of the watershed, and identify measures to protect, enhance, and restore the health of the watershed. Watershed planning integrates natural systems into land use and infrastructure decision-making by identifying natural features to protect and by recommending how to mitigate impacts from land use and infrastructure development on natural systems. Ontario's provincial planning framework recognizes that watershed planning is important to informing land use and infrastructure planning decisions.

The development of this watershed plan has been a collaborative effort between the Toronto and Region Conservation Authority (TRCA), the Region of Durham, the Town of Ajax, and the City of Pickering. Additional stakeholders and members of the public have been involved throughout the watershed planning process.

Carruthers Creek is a small watershed that crosses rural and urban lands, including portions of the provincial Greenbelt, before entering Lake Ontario. Urbanization and the impacts of climate change will continue to stress the health and resiliency of the watershed. Watershed planning is a means to identify opportunities to mitigate and adapt to potential changes in watershed health arising from land use and infrastructure development patterns.

The development of the Carruthers Creek Watershed Plan was a multi-year process that consisted of:

1. Watershed characterization, which involves the identification of current conditions in the watershed.

   The key issues with Carruthers Creek were identified to be:

   - The aquatic ecosystem is sensitive and near the level of land use development it can sustain long-term (without additional and improved mitigation).
   - There is not enough natural cover, or good quality habitat, needed to maintain ecosystem resilience (i.e. capacity to respond to change) due to changing land use patterns and climate change.
   - Water quality is impaired (i.e. degraded), requiring improvements to stormwater management.
   - The flow of water through the watershed is out of balance from natural conditions resulting in flooding and erosion issues.

2. Understanding future conditions through the analysis of potential land use scenarios. Three potential future scenarios were compared to 2015 land use conditions as part of the Carruthers Creek watershed planning process.

   - **Scenario 1 (+OP)** – assumes all lands south of the Greenbelt are developed as planned in approved Official Plans up to the year 2031.
   - **Scenario 2 (+NHS)** – assumes the same development as scenario 1 but includes the proposed enhanced Natural Heritage System (includes natural features and areas, such as forests, meadows, wetlands, and potential natural cover enhancement areas).
   - **Scenario 3 (+Potential Urban)** – assumes post-2031 development in the headwaters of Carruthers Creek outside the proposed enhanced Natural Heritage System.

   These three potential future scenarios help determine how the watershed would react to these potential land use changes, which can help inform future land use and infrastructure planning decisions. In other words, would these potential changes have a positive, neutral, or negative effect on the health of the Carruthers Creek watershed? Scenario analysis does not result in decisions about the type and configuration of land uses. Instead, scenario analysis helps to inform decisions through the municipal planning process (e.g. Official Plans, secondary plans).

3. The development of a management framework to provide recommendations on how to protect, enhance, and restore the watershed. The management framework consists of goals, objectives, indicators, and management recommendations. This management framework is designed to address existing issues in the watershed and mitigate impacts from potential future land uses, while recommending appropriate actions to protect, enhance, and restore the watershed. Decisions on the configuration of future growth and land use throughout the watershed are the purview of the applicable municipality (e.g. Region of Durham for decisions such as settlement area boundary expansions and local municipalities for site-specific decisions). The management framework is focused on:

   - Achieving more sustainable land use and infrastructure development patterns through the use of low impact development and green infrastructure policies, improved stormwater management, managing the risks of flooding and erosion, and implementing agricultural best management practices.
   - Protecting, enhancing, and restoring the Water Resource System and improving aquatic habitat connectivity.
   - Protecting, enhancing, and restoring the Natural Heritage System and increasing urban forest cover.

4. A monitoring and evaluation program to track implementation progress and ensure mechanisms are in place to adjust approaches as needed. The indicators identified as part of the management framework will help determine if actions taken in the watershed are having the desired benefit. Adaptive management will be used to adjust the management framework as needed.

Through the implementation of the Carruthers Creek Watershed Plan, TRCA and its municipal partners can improve the health of the watershed and ensure integrated long-term planning for land use and infrastructure decision-making. Protecting, enhancing, and restoring the natural systems within the watershed; accompanied by sustainable land use and infrastructure planning of redevelopments and future growth is essential for a healthy Carruthers Creek watershed.

WHAT IS A WATERSHED?

An area that is drained by a river and its tributaries. Wherever you are right now, you are in a watershed.

WATERSHEDS DELIVER IMPORTANT BENEFITS

Human – provide safe drinking water and food, and help to reduce flooding and erosion.

Economic – produce energy, and supply water for agriculture, industry and homes.

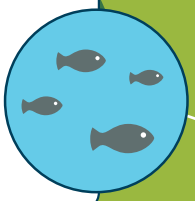
Environment – promote a healthy water cycle, and provide vital habitat for wildlife and plants.

What is the Natural Heritage System?

Consists of natural features and areas, including wetlands, forests, meadows and valleylands, that are needed to maintain biodiversity and healthy ecosystems.

What is the Water Resource System?

Consists of groundwater and surface water features and areas, including streams, lakes, groundwater recharge areas and springs, needed to sustain healthy aquatic and terrestrial ecosystems, and human water supply.



What causes Flooding?

Rivers naturally flood with heavy rain or snowmelt, but flooding can become a problem when buildings and other structures are placed in flood plains. Climate change and urbanization can make flooding worse.

How can salt impact a watershed?

Chlorides can contaminate drinking water and negatively affect the health of aquatic species.

What is stormwater?

Rain and melting snow rushes off roofs, sidewalks and parking lots into pipes and pours into streams and lakes. Without proper stormwater control and treatment, flooding and erosion can increase, waterways can become polluted and local ecosystems can be damaged.

How can agriculture impact a watershed?

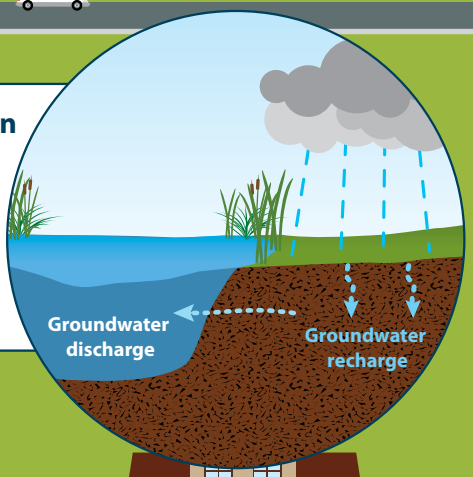
Agricultural areas provide valuable greenspace and reduce stormwater, since precipitation can penetrate the soil. On the other hand, agricultural fields can release harmful contaminants into waterways as excess nutrients (e.g. phosphorous) and pesticides. Soil erosion from fields can increase the amount of sediment in waterways negatively affecting aquatic ecosystems.

How can urbanization impact a watershed?

Since impervious surfaces (roads, buildings, parking lots) prevent water from penetrating into soil, stormwater runoff can carry contaminants into waterways and increase the likelihood of flooding. Infrastructure and land use development can degrade habitat, reducing the quality and quantity of natural systems and their connectivity.

Surface and Groundwater Interaction

Rain and melting snow penetrate the soil in permeable areas draining into an aquifer (i.e. groundwater recharge areas). That groundwater can then discharge at springs into streams, wetlands or other surface water features.



Benefits of the Urban Forest

All trees in a city collectively help to remove pollutants from air and water, reduce stormwater runoff, cool communities, save energy, and improve human health and well-being.

Table of Contents

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ACRONYMS

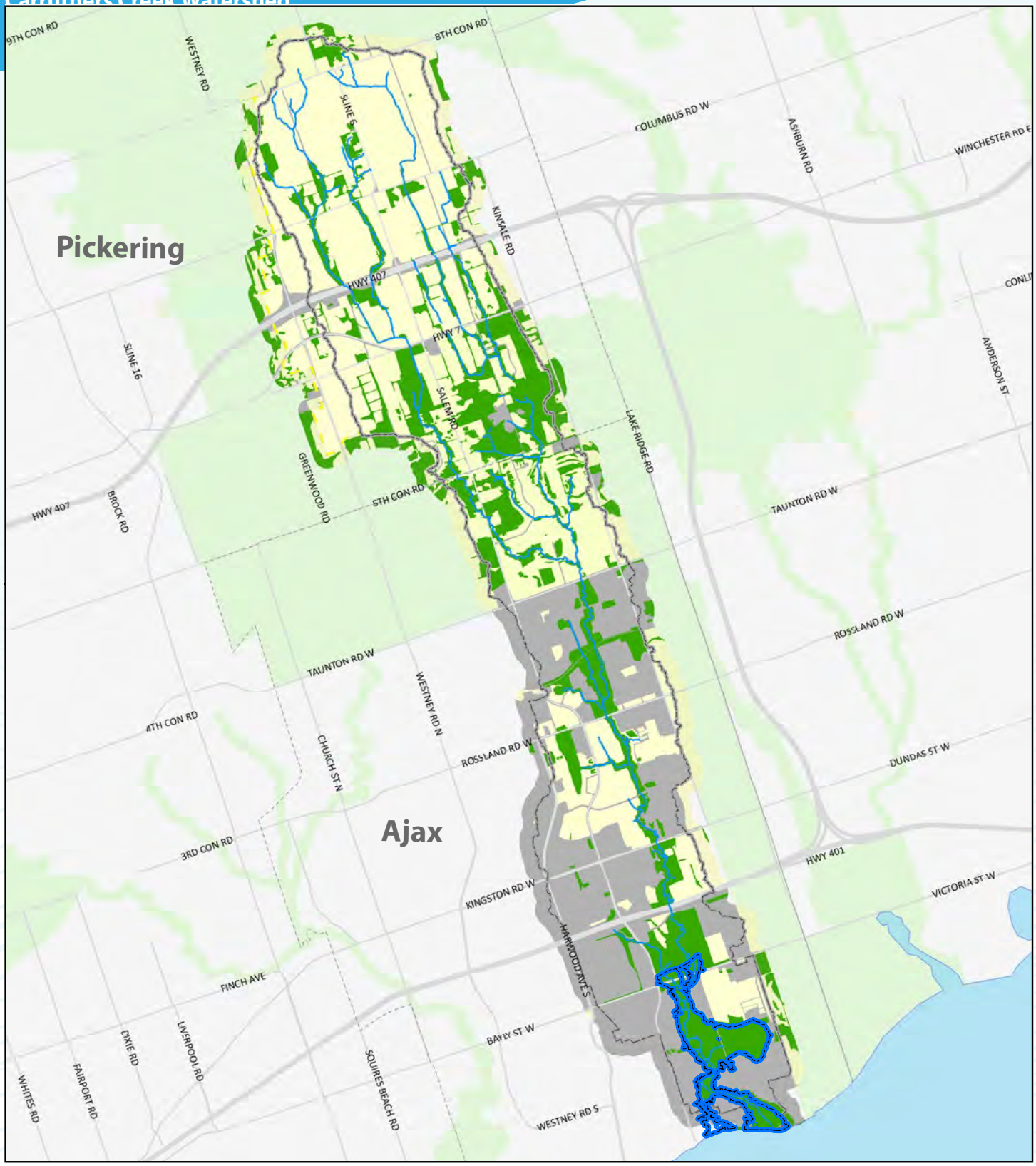
ANSI	Areas of Natural and Scientific Interest
CCME	Canadian Council of Ministers of the Environment
CTC	Credit Valley, Toronto and Region and Central Lake Ontario
DFO	Department of Fisheries and Oceans
ESGRAs	Ecologically Significant Groundwater Recharge Areas
FBI	Family Biotic Index
FVC	Flood Vulnerable Cluster
GIS	Geographic Information System
Growth Plan	Growth Plan for the Greater Golden Horseshoe, 2019
GTA	Greater Toronto Area
IBI	Index of Biotic Integrity
IRP	Integrated Restoration Prioritization
LAM	Landscape Analysis Model
MECP	Ministry of the Environment, Conservation and Parks
MNRF	Ministry of Natural Resources and Forestry
NHS	Natural Heritage System
PPS	Provincial Policy Statement
PWQO	Provincial Water Quality Objectives
ROP	Regional Official Plan
TRCA	Toronto and Region Conservation Authority
TSS	Total Suspended Solids
WRS	Water Resource System

Indigenous Land Acknowledgement

As we strive to develop a comprehensive watershed plan for the Carruthers Creek watershed, Toronto and Region Conservation Authority (TRCA) acknowledges that this watershed planning was undertaken within the traditional territory and treaty lands of the Anishinaabeg of the Williams Treaty First Nations, and the traditional territory of the Huron-Wendat Nation. As stewards of land and water resources within the Greater Toronto Area (GTA), TRCA appreciates and recognizes the history and diversity of the land, as well as our shared values and interests and is respectful of working in this territory.

FIGURE 2:

Carruthers Creek Watershed



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Carruthers Creek Watershed Plan: 2015 Land Use Conditions

0 0.5 1 2 3 KM

- Municipal Boundary
- Watercourse

Land Use

- Natural
- Rural
- Urban

- Flood Vulnerable Cluster
- Greenbelt Boundary
- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study Area

1. Introduction and Background

Carruthers Creek is a small, yet important watershed that crosses rural and urban areas before entering Lake Ontario. This watershed plan represents a collaborative effort to determine the current state of the watershed, assess potential future land use scenarios, and determine an appropriate management framework to ensure the long-term sustainability and resiliency of the watershed.

See **Figure 2** for a map of the Carruthers Creek watershed and its land use conditions as of 2015. This watershed plan has a ten-year time frame. However, regular monitoring and evaluation, including adaptive management, will ensure that the watershed plan is updated, or refined, as needed on an ongoing basis.

Vision for the Carruthers Creek watershed:

Carruthers Creek watershed is a healthy and resilient natural system that is managed through partnerships to balance resource protection with human activity. Sound science and best management practices will protect and restore ecosystem functions, protect watershed residents from natural hazards like flooding, and maintain our natural heritage and water resources for present and future generations.

1.1 RATIONALE AND POLICY BASIS

Watershed planning is important because it helps to understand the current conditions of the watershed (i.e. watershed characterization), and identify measures to protect, enhance, and restore the health of a watershed. Watershed plans provide a comprehensive understanding of the ecological forms and functions of the various features and areas that comprise the water resource and natural heritage systems. Additionally, watershed planning helps to inform how land use and infrastructure planning influence and affect the natural ecology of the watershed.

This subsection will explain the provincial policy basis for watershed planning and the roles of municipalities and TRCA in implementing that policy framework.

Provincial Watershed Planning Policy Basis

Ontario's planning policy framework recognizes the importance of watershed planning to inform land use and infrastructure decision-making. The key policy driver for watershed planning is applicable provincial policy direction in the Provincial Policy Statement, 2020 (PPS) and provincial plans such as the Growth Plan for the Greater Golden Horseshoe, 2020 (Growth Plan) and the Greenbelt Plan, 2017 (Greenbelt Plan)[1].

PPS policies encourage a coordinated approach to planning that recognizes the watershed as the ecologically meaningful scale for integrated and long-term planning. The PPS also directs the protection, improvement or restoration of the quality and quantity of water by minimizing potential negative impacts. Growth Plan and Greenbelt Plan policies require watershed planning to be undertaken to support the protection, enhancement or restoration of the quality and quantity of water within a watershed[2].

Furthermore, watershed planning is to be used to identify the Water Resource System (WRS), inform decisions on allocation of growth and planning for water, wastewater, and stormwater infrastructure[3].

Provincial policies also recognize the importance of protecting, enhancing, and restoring the Natural Heritage System (NHS) to maintain long-term ecological and hydrologic functions of the features and areas[4], and demonstrating that there will be no negative impacts from development and site alteration. The integrated nature and importance of the natural heritage and water resource systems is discussed in greater detail in **Section 2**.

[1]There are other geographically specific provincial plans that do not apply to the Carruthers Creek watershed (e.g. Lake Simcoe Protection Plan, Oak Ridges Moraine Conservation Plan and Niagara Escarpment Plan).

[2]Growth Plan policy 4.2.1.1 and Greenbelt Plan policy 3.2.3.2.

[3]Growth Plan policy 4.2.1.3 and Greenbelt Plan policies 3.2.3.3 and 3.2.3.4.

[4]Natural Heritage System policies for the Growth Plan are 4.2.2 and the Greenbelt Plan are 3.2.2.

Municipalities are required to conform to the PPS and applicable provincial plans through the municipal planning process and when updating their Official Plans. This Carruthers Creek Watershed Plan identifies management recommendations necessary to demonstrate conformity with provincial policies related to watershed planning. By implementing the recommendations included in this watershed plan, municipalities will be able to demonstrate how the features and areas that comprise the natural heritage and water resource systems, as well as water quality and quantity, will be protected, enhanced, and restored.

Ontario's *Clean Water Act, 2006* is designed to protect existing and future sources of drinking water. Under the *Clean Water Act, 2006*, source protection plans were developed by source protection committees representing municipal, Indigenous, public, and business interests. The Credit Valley – Toronto and Region – Central Lake Ontario (CTC) Source Protection Plan applies in the Carruthers Creek watershed. The CTC Source Protection Plan is a strategy and suite of policies developed by residents, businesses, and the municipalities, which outlines how water quality and quantity for municipal drinking water systems, not including private well owners, will be protected. The CTC Source Protection Plan includes its own set of policies and compliance mechanisms, in accordance with the *Clean Water Act, 2006*, that are not repeated in this watershed plan. The management recommendations identified in this watershed plan complement the requirements of the applicable source protection plan by including the need to protect water resources, which will support safe drinking water regardless of source (i.e. municipal and private systems).

Reducing Natural Cover Losses in the Carruthers Creek Watershed

There have been losses and impacts to natural cover in the watershed, including parts of the Greenbelt. These changes have continued since the enactment of the *Greenbelt Act, 2005*

POLICY FRAMEWORK

As discussed in this section, the Greenbelt Plan is one part of Ontario's land use planning framework. One vital policy tool for maintaining natural cover in both the Growth Plan and the Greenbelt Plan is the NHS policies. Once a NHS is designated in a municipal Official Plan, any development or site alteration must meet certain policy requirements in the applicable provincial plan.

Observed land use changes within the Carruthers Creek portion of the Greenbelt include fill sites, road widenings, land clearing on existing lots, farming and non-farm business operations, and vehicle and other storage.

MOVING FORWARD

This watershed plan identifies recommendations to strengthen municipal policies to protect the NHS, in accordance with provincial policy, and identifies opportunities for restoration programs.

If community members are concerned about any development, large scale tree cutting or fill activities, please contact your local municipality, Region of Durham, or conservation authority for assistance.

Ontario's provincial planning policies recognize the importance of the Great Lakes[5]. Carruthers Creek flows into Lake Ontario. The series of Great Lakes agreements, legislation and policies set binational, national, and provincial commitments to protect and restore the Great Lakes. This watershed plan is intended to improve the conditions within the Carruthers Creek watershed, thereby reducing negative impacts to Lake Ontario from this single watershed.

Role of Municipalities

Within the Greater Golden Horseshoe, most municipalities in Ontario are organized into two-tier systems. Upper-tier municipalities, such as the Region of Durham, are comprised of several lower-tier municipalities. The role of regional government is to address issues and concerns that apply to broader geographic areas, crossing the borders of lower-tier municipalities.

For land use planning, regional government's primary planning tool is a Regional Official Plan (ROP). The ROP implements the requirements of any relevant provincial legislation, provincial plans, and the PPS. Area municipalities develop their own, more detailed Official Plans (and may include more detailed secondary plans, Part II Plans, or tertiary plans as the case may be), as well as implementing zoning by-laws. While the ROP is required to implement provincial policy, area municipal planning tools are required to conform with both regional and provincial policy.

Municipalities are granted decision-making powers through the *Municipal Act* and *Planning Act*. Watershed planning helps municipalities to make informed decisions on where and how to grow, while identifying opportunities to improve natural watershed conditions (e.g. restoration opportunities).

Role of TRCA

Conservation authorities were established and granted responsibilities under the *Conservation Authorities Act*. Conservation authorities play an important role in land use planning and environmental protection processes in partnership with municipalities, but are not the decision-makers in land use and infrastructure planning. Conservation authorities deliver programs and services related to natural hazard protection and management (i.e. flooding), conservation and management of conservation authority lands, drinking water source protection (as prescribed under the *Clean Water Act, 2006*), and conserving natural resources. Through its watershed expertise, TRCA, in partnership with the Region of Durham, Town of Ajax, and City of Pickering, has developed this watershed plan to help inform land use and infrastructure planning decisions.

[5]The PPS identifies the importance of considering the priorities identified in various agreements related to the protection or restoration of the Great Lakes – St. Lawrence River Basin. The Growth Plan and Greenbelt Plan require the consideration of the Great Lakes Strategy and the Great Lakes Protection Act, 2015, and any applicable Great Lakes agreements as part of watershed planning.

1.2 LOCAL CONTEXT AND CONSIDERATIONS

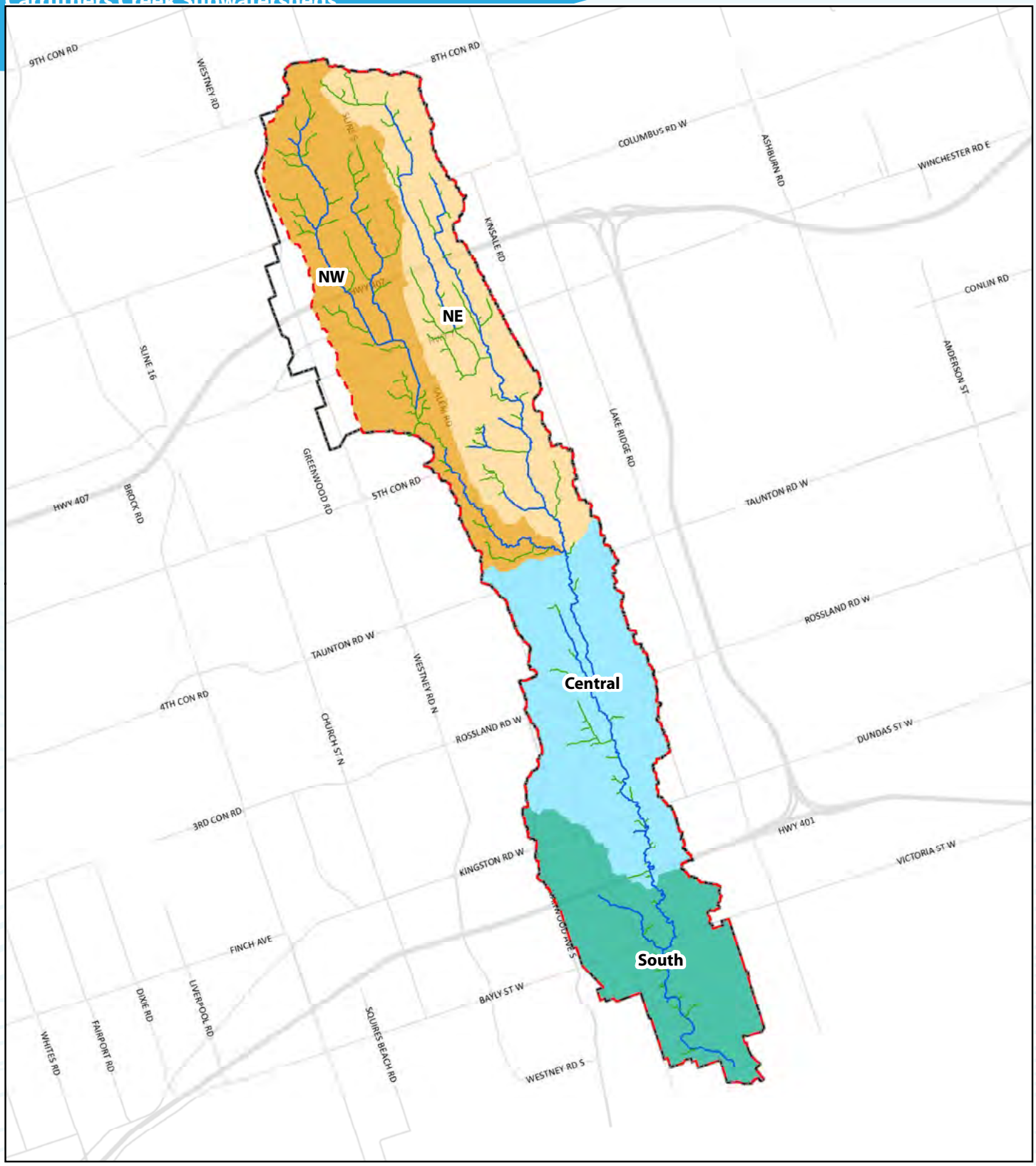
Carruthers Creek is a relatively small watershed with a drainage area of approximately 38 km^2, ranging from 2-3 km in width and 18 km in length, and occurs within the South Slope and glacial Lake Iroquois physiographic regions. It is the easternmost watershed in TRCA's jurisdiction and is bordered by the Duffins Creek watershed to the west and the Lynde Creek watershed in the east. The watershed has approximately 41,000 residents and is located entirely within the Region of Durham. Carruthers Creek's headwaters form to the south of the Oak Ridges Moraine, in the City of Pickering, and the creek enters Lake Ontario in the Town of Ajax. The watershed is mainly rural north of Highway 7 and urbanized south of Taunton Road to the lakeshore. From Highway 7 south to Taunton Road, most lands are in the protected countryside designation of the provincial Greenbelt Plan.

Carruthers Creek watershed consists of four subwatersheds, for the purposes of this watershed plan. Subwatersheds are defined as areas drained by a tributary, or portion of the stream, and are a more geographically specific scale than watersheds. Some of the technical analyses conducted as part of this watershed planning process used the four subwatersheds identified in **Figure 3** to evaluate the conditions of the watershed from a more refined geographic location.

The previous 2003 Duffins and Carruthers Creek Watershed Plan evaluated existing watershed conditions and identified recommendations to protect, restore, and enhance the natural systems and water quality of Carruthers Creek. The issues identified in the 2003 plan are still prevalent in the Carruthers Creek watershed, such as the need to protect and restore natural areas, improve stormwater management, and address water quality concerns. Since 2003, the Carruthers Creek watershed has undergone significant changes associated with urbanization and the impacts of climate change (See **Section 3**) for more information. Since many of the issues identified in the previous watershed plan are still occurring, an updated watershed plan using the latest advancements in watershed science, monitoring programs, and computer modelling was necessary.

Periodic reviews of watershed plans are an integral component of the watershed planning process and allow for adaptive management to incorporate new scientific approaches and to address emerging initiatives. This watershed plan update is also more reflective of current provincial policies around watershed planning, which have evolved since the 2003 plan. At the request of the Region of Durham, a small section of lands in the East Duffins Creek subwatershed, which are immediately adjacent to Carruthers Creek watershed and outside of the provincial Greenbelt, were included in the study area to provide a more complete analysis of lands in the area. However, only watershed planning processes that occur at the regional, rather than the watershed scale, were assessed (i.e. NHS planning and groundwater modelling), as these processes extend beyond the watershed boundary.

FIGURE 3:
Carruthers Creek Subwatersheds



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Carruthers Creek Watershed Plan: Subwatersheds

0 0.5 1 2 3 KM

Subwatershed Boundary
- Central
- NE
- NW
- South
- Intermittent Streams
- Permanent Streams
- Carruthers Watershed Boundary
- Carruthers Watershed Plan Study Area

The development of this Carruthers Creek Watershed Plan was a multi-year process completed in the following sequence:

- Field work on existing watershed conditions **(2015-2016)**
- Watershed characterization technical reports completed **(2017)** – See **Section 3** for the results of watershed characterization
- Potential future scenarios modelling and analysis undertaken **(2018)**
- Scenario analysis technical reports completed **(2019)** – See **Section 4** for information on the potential future scenarios and results
- Water Resource and Natural Heritage Systems identified **(2019)** – See **Section 2** for more information on these systems
- Management framework for Carruthers Creek developed **(2019)** – See **Section 5** for the Carruthers Creek management framework
- Draft Carruthers Creek Watershed Plan released for public review (**2020**)

1.3 PARTNERS AND STAKEHOLDERS

In 2015, the Region of Durham engaged TRCA to develop a watershed plan for Carruthers Creek. The key partners involved in the process to develop this watershed plan are TRCA, the Region of Durham, the Town of Ajax, and the City of Pickering.

Throughout the multi-year process discussed in **Subsection 1.2**, TRCA engaged the Mississaugas of Scugog Island, stakeholders, and the public to raise awareness of the watershed, planning process and solicit feedback on components of this watershed plan. Stakeholders engaged include watershed residents, landowners, farmers, developers, golf course operators, and environmental non-governmental organizations.

Stakeholders were engaged at various points during this watershed planning process, as follows:

LATE 2015 – LATE 2017

Promoted and raised awareness of the watershed planning process for Carruthers Creek through reports and presentations to Councils and Committees of the Region of Durham, Town of Ajax, and City of Pickering.

LATE 2017 – EARLY 2019

Continued to raise awareness of the watershed planning process for Carruthers Creek and gathered feedback from the public on a vision for the watershed plan. This was completed by launching an interactive website and hosting information booths at various events across the watershed.

MID 2019 – LATE 2019

Gathered feedback on the draft management framework for the Carruthers Creek Watershed Plan from partners and stakeholders. Two public open houses were held in October 2019.

EARLY 2020 - MID 2021

The draft Carruthers Creek Watershed Plan was released for public review in March 2020. Two virtual open houses were held in February 2021. The public review comment period closed March 19, 2021.

Feedback received from partners and stakeholders was invaluable in the development of this watershed plan. The Carruthers Creek Watershed Plan reflects the diversity of issues and concerns raised throughout the planning process and represents a realistic and manageable plan to improve the overall health of the Carruthers Creek watershed.

All the partners and stakeholders engaged as part of this process play a key role in the effective implementation of the management recommendations identified in **Section 5**.

2. Water Resource and Natural Heritage Systems

The aquatic and terrestrial features and areas that maintain the ecological integrity of a watershed consist of two integrated systems, the WRS and NHS. Together, these two systems provide essential ecosystem services, including water storage and filtration, cleaner air, support to biodiversity and habitats, carbon storage, as well as resiliency to climate change. Maintaining extensive, connected and high-quality ecological and hydrological features and areas of both systems is essential for the long-term health and sustainability of Carruthers Creek, as shown in **Figure 1**.

As mentioned in **Subsection 1.1**, identifying and protecting both systems is a key policy requirement in the Growth Plan and Greenbelt Plan.

The features and areas that comprise both systems are explained in **Table 1** below.

TABLE 1:
Description of the Water Resource System and Natural Heritage System

Water Resource System	Natural Heritage System
A system consisting of groundwater features and areas and surface water features (including shoreline areas), and hydrologic functions, which provide the water resources necessary to sustain healthy aquatic and terrestrial ecosystems and human water consumption.	A system made up of natural heritage features and areas, and linkages identified to provide connectivity (at the regional or site level) and support natural processes which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species, and ecosystems.
The WRS consists of: **Key Hydrologic Areas** • Significant Groundwater Recharge Areas (including Ecologically Significant Groundwater Recharge Areas) • Highly Vulnerable Aquifers • Significant Surface Water Contribution Areas **Key Hydrologic Features** • Permanent Streams • Intermittent Streams • Inland Lakes and their Littoral Zones • Seepage Areas and Springs • Wetlands*	The NHS consists of: • Significant Wetlands* • Significant Coastal Wetlands • Other Coastal Wetlands in Ecoregions 5E, 6E and 7E • Fish habitat* • Significant Woodlands • Significant Valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Mary's River) • Habitat of Endangered Species and Threatened Species • Significant Wildlife Habitat • Significant Areas of Natural and Scientific Interest (ANSIs) • Sand barrens, savannahs, tallgrass prairies and alvars • Federal or provincial parks, and conservation reserves

***Notes:**
Wetlands are important features in both systems. For the purposes of mapping in **Section 7**, wetlands are shown separately in **Map 1A** for the WRS and included as natural cover in **Map 2** for the NHS. Fish habitat in the NHS overlaps with features and areas in the WRS.

The majority of these terms are defined in the Growth Plan, 2020. Some, but not all definitions, have been included in the Glossary (**Section 8**) of this watershed plan.

Not all of the NHS features or areas identified in this table are part of the proposed enhanced NHS for Carruthers Creek, since some of these features do not exist in this watershed (e.g. sand barrens, savannahs, etc.), or are not distinguished specifically from natural cover areas (e.g. significant woodlands and significant wildlife habitat).

Due to the importance of both systems, the protection, enhancement, and restoration of the WRS and NHS are goals of this watershed plan (**Section 5**).

See **Section 7** for maps of the WRS and the recommended NHS.

How the WRS was delineated?

The key hydrologic areas and key hydrologic features that comprise the WRS were delineated using various techniques and methodologies.

Highly Vulnerable Aquifers and Significant Groundwater Recharge Areas were determined through Technical Rules established under the *Clean Water Act, 2006* for the purposes of regional source water protection planning. Ecologically Significant Groundwater Recharge Areas (ESGRAs) were determined using a model developed by the Oak Ridges Moraine Groundwater Program to optimize the protection of groundwater dependent ecosystems. The model results for ESGRAs were assessed to minimize the land area covered by these key hydrologic areas while maintaining a high degree of hydrological function protection for these ecosystems. Significant Surface Water Contribution Areas include many of the intermittent streams in the headwaters (northern portion) of Carruthers Creek.

Each of the five key hydrologic features were delineated using a combination of satellite imagery, ArcHydro GIS, and field site verification.

The WRS provides habitat for aquatic life (e.g. fish). The conditions of aquatic habitat in Carruthers Creek were assessed as part of this watershed planning process.

How the NHS was delineated?

The components of the NHS were delineated using a robust methodology that incorporated ecological models (e.g. Landscape Analysis Model), information from satellite imagery, monitoring data, field site verification, and expert based knowledge.

The components of the NHS were identified for their ecological value as existing and potential natural cover (i.e. areas targeted for restoration and enhancement), to:

- Increase natural cover (e.g. forests, wetlands, meadows, etc.) quantity and quality by improving habitat size, shape, and connectivity in and around existing natural areas, as well as in areas for potential restoration
- Protect and restore species and vegetation communities by incorporating diverse habitat types, mitigating the impacts of urban development, and improving the ecological connectivity across the watershed
- Incorporate natural system vulnerabilities to climate change in planning processes to build a more resilient NHS

Protecting the WRS and NHS

As mentioned in **Subsection 1.2**, provincial policies recognize the importance of protecting the WRS and NHS. Municipalities are required to demonstrate how these systems will be protected. Through its technical and scientific expertise, TRCA delineated both systems as part of this watershed planning process.

For the recommended NHS, the areas identified as potential natural cover (enhancement areas) should be restored to maintain the long-term resiliency and sustainability of terrestrial ecosystems, in addition to protecting the existing natural cover. TRCA's *Terrestrial Natural Heritage System Strategy* has a minimum target of 30% natural cover across the entire jurisdiction, while recognizing there will be variability among TRCA's nine watersheds due to existing land uses. The Carruthers Creek watershed is currently below that target (see **Subsection 3.3** for more information).

The management framework (**Section 5**) of this watershed plan, recognizes that land use and/or infrastructure decisions may impact, or occur, within the WRS or NHS, and establishes recommendations to avoid these features and areas, mitigate impacts, or when impacts are unavoidable, provide for ecosystem compensation. Municipalities are responsible for designating a NHS that is consistent with provincial policies and informed by the goals and objectives of this watershed plan.

3. Existing Watershed Conditions

Watershed characterization is a vital part of watershed planning, which helps to determine the current conditions of the watershed. As part of this watershed plan, TRCA produced technical reports on different components of the watershed, which are summarized in this section.

3.1 CONTEXT AND BACKGROUND

Since the previous watershed plan is from 2003, the existing conditions of the watershed were evaluated using more recent data and science. TRCA produced eight peer-reviewed technical reports as part of watershed characterization. These technical reports helped determine the current state of the watershed, as discussed in **Subsection 3.3**

Watershed characterization includes the following topics (see full technical reports listed in **Section 9**):

Aquatic Crossing and Barrier Assessment

Involved the assessment of existing structures in Carruthers Creek that represent barriers to fish passage, such as perched culverts and online ponds.

Aquatic Habitat and Community Characterization

Involved the assessment of aquatic habitat conditions, stream temperature, fish community richness and composition, and benthic invertebrate richness and composition.

Fluvial Geomorphology

Involved the assessment of the creek's flow and sediment movement processes, drainage patterns, and potential erosion risks.

Headwater Drainage Features

Involved the assessment of small streams in the upper portions of the watershed that may not flow year-round (i.e. intermittent and ephemeral). These features provide hydrologic and ecological functions to maintain downstream watershed conditions.

Hydrogeology

Involved the assessment of groundwater conditions within the watershed, such as groundwater recharge and discharge, and groundwater flow and quality.

Surface Water Quality Characterization

Involved the assessment of current and past water quality conditions to determine trends and factors influencing water quality.

Terrestrial Natural Heritage

Involved the assessment of natural cover, terrestrial habitat, and species across the watershed.

Water Quantity Characterization

Involved the assessment of the volume, velocity, spatial distribution, and timing of water moving through the stream network (i.e. streamflow).

3.2 HISTORICAL AND CURRENT LAND USES

Ongoing urbanization in the GTA continues to convert natural and agricultural lands to other uses. This is true in the Carruthers Creek watershed as well. In 1999, the watershed consisted of 28% natural cover, 53% agricultural lands, and 12% urban area[6]. As of 2015, natural cover had dropped to 25% and agricultural lands to 34%. Urban land use increased to approximately 37% during that time period. See **Figure 2** for a map of 2015 land use conditions. This historical context is important for characterizing the current conditions of the watershed as it helps to understand the rate of change within the watershed and provides a useful benchmark for comparison.

3.3 CURRENT STATE OF THE WATERSHED

Based on the technical assessments conducted as part of watershed characterization (discussed in **Subsection 3.1**), there are four key issues in Carruthers Creek:

1 **WATER RESOURCE SYSTEM:** the aquatic ecosystem is sensitive and near the level of land use development it can sustain long-term (without additional and improved mitigation).

The current state of the WRS includes assessments of headwater drainage features, fish communities, in-stream barriers to fish movement and groundwater recharge areas, which support discharge to aquatic habitats.

The analysis of the small stream features north of Highway 7 (i.e. headwater drainage features), showed that 67% of the features have been altered (i.e. reducing hydrologic connectivity and increasing surface runoff) in some way by human activities, primarily through tile drainage.

Tile Drainage

Tile drainage is a common and important land management practice in many agricultural parts of Ontario. Tile drains are corrugated plastic tubing, clay or concrete drains installed beneath the surface of fields to drain excess water from the crop root zone.

Working with the agricultural community is important to identify opportunities to mitigate the potential impacts of tile drainage.

Consult the Ontario Ministry of Agriculture, Food and Rural Affairs, or the Ontario Soil and Crop Improvement Association for more information.

[6]Additional land use categories such as water, recreational, golf courses, cemeteries, and hydro corridors make up the remaining percentages not included in the categories of natural, agricultural, and urban land uses.

Currently, the fish communities within the watershed are dominated by cool-water native species. Redside Dace, an endangered species, is currently found within the watershed.

Urbanization results in impervious land cover (i.e. pavement, or areas where water cannot penetrate the ground). Imperviousness can increase the severity and duration of peak flows during storm events, cause erosion and sedimentation, and increase stream temperatures, which impacts aquatic habitat for all species. Some areas of the watershed are impacted by poor water quality, which negatively impacts the aquatic ecosystem (see key issue number three, water quality for more information).

Existing in-stream barriers to fish movement associated with development and infrastructure adversely impacts the aquatic system in Carruthers Creek by limiting access to feeding and spawning areas, increasing water temperature, and affecting sediment transport. In-stream structures that act as barriers to fish passage include dams, weirs, road and rail crossings, and some culverts.

From a groundwater perspective, there are three aquifer systems present in the watershed. These aquifer systems include the Oak Ridges Moraine / Mackinaw Interstadial, Thorncliffe, and Scarborough aquifer complexes. Long-term groundwater quality information for specific sites within the Carruthers Creek watershed are unavailable, but there have been a number of studies conducted in adjacent watersheds to provide an indication of background groundwater quality. The available information from Duffins Creek and Rouge River indicate elevated levels of nitrates and chlorides in groundwater attributed to road salts and fertilizer use. Healthy groundwater systems are essential for safe drinking water (e.g. particularly from rural private wells), commercial agricultural activities, and to support aquatic ecosystems.

2 NATURAL HERITAGE SYSTEM: there is not enough natural cover, or good quality habitat, needed to maintain ecosystem resilience (i.e. capacity to respond to change) due to changing land use patterns and climate change.

As of 2015, approximately 25% of the watershed consisted of natural cover. Approximately 9% of that natural cover is forest, 7% wetland, 4% successional (transitioning to forest), and 3% meadow [7]. Current habitat conditions are overall poor in terms of patch size, shape, and influences from surrounding land uses.

In addition to this assessment of natural cover within the watershed, TRCA also conducted terrestrial inventories of plants and animals. These inventories found 845 vascular plant species, of which only 57% are native species. These results indicate a significant presence of invasive species, such as dog-strangling vine, garlic mustard, and common buckthorn. The inventory also identified 153 flora species of regional conservation concern including four species that have not been found anywhere else in TRCA's jurisdiction. Inventories documented a total of 133 breeding vertebrate fauna species over the past decade comprised of 106 breeding birds, 18 mammals, and 9 herpetofauna (i.e. reptiles and amphibians).

The urban forest within the Carruthers Creek watershed contains 94 types of woody plant species, with over 270 varieties. Maples make up the most common type of tree within the watershed. In 2017, approximately 23% of the watershed consisted of tree and shrub canopy.

[7]The remaining natural cover percentages are around, or less than, one percent, consisting of water, hydro corridors, and beach/bluff.

FIGURE 4:
Comparing Urban Forest and Natural Cover

Difference between urban forest and natural cover

The term **urban forest** is used to describe the trees and woody shrubs located on all private and public property within a watershed, including urbanized spaces (e.g. along roads) and in forests. The percentage of urban forest within a watershed is determined by the area covered by the canopies of all trees and shrubs.

Natural cover, expressed in hectares, or as a percentage of the overall watershed area, is the area of the watershed covered by natural habitats including forests, meadows, and wetlands.

Natural cover includes habitats with varying degrees of trees and shrubs. Meadows for example are open habitats that do not contain trees. Although meadows, and other non-treed habitats, are natural cover, they are not part of the urban forest. Similarly, the urban forest includes trees located within built portions of the watershed, outside of natural habitats. For these reasons, the amount of natural cover and the amount of urban forest in a watershed will not be equal as is the case of the Carruthers Creek watershed.

See **Figure 4** for a visual representation of this explanation.

3 WATER QUALITY: is impaired within the watershed, requiring improvements to stormwater management.

The headwaters of Carruthers Creek contain elevated concentrations of total phosphorus, phosphate, total ammonia, *E. coli*, total suspended solids (TSS), turbidity, and some trace metals. These elevated concentrations in the headwaters were likely influenced by agricultural practices and the construction of Highway 407. Just upstream of urban development, concentrations were reduced for most parameters, except chloride. Chloride levels regularly exceeded the threshold for the protection of aquatic life in the reaches of Carruthers Creek with urban influences. Additionally, increased concentrations of total ammonia, nitrite, phosphate, turbidity, and trace metals are often observed downstream of the urban area. As expected, the concentrations of many water quality parameters were elevated during high flow conditions that occur during storm runoff and wet weather.

Prior to the 1980s, stormwater management focused solely on flood control (stormwater quantity). Modern stormwater management provides a higher level of protection for the environment, property, and residents by incorporating mitigation provisions for water quality, erosion, and water balance in addition to water quantity control. The Carruthers Creek watershed has various levels of stormwater control that are indicative of the age of development and the prevailing stormwater management practices at the time.

4 NATURAL HAZARDS: the flow of water through the watershed is out of balance and there are flooding and erosion issues.

Urbanization converts formerly pervious surfaces (e.g. forests, meadows, agricultural lands) to impervious surfaces (e.g. roads, parking lots, rooftops). From 1999 to present day, the increase in urban cover has greatly altered the natural water balance. In addition, existing agricultural lands located in the headwaters of the watershed are extensively tile drained. Several sites with erosion issues were identified as part of the fluvial geomorphic assessment.

During storm events, the increase in surface runoff associated with impervious surfaces can result in excessive riverine flooding and stream erosion. Currently, a Flood Vulnerable Cluster (FVC) exists in the lower part of the Carruthers Creek watershed in the Town of Ajax (see **Figure 2** or **5** for the location of this FVC). There have been both historical and recent flooding events in the Carruthers Creek watershed due to extreme precipitation events.

These four key issues provide the basis for the management framework of this watershed plan, discussed in **Section 5**.

Table 2 summarizes benchmarks for the four key watershed issues previously discussed. The benchmarks are important reference points for understanding how watershed conditions can change over time to evaluate success of this watershed plan. **Table 2** also identifies guidelines (or rating scales) to show the ideal state of that particular watershed component. The guidelines (or rating scales) are informed by relevant TRCA strategies, provincial or federal guidance, and established conservation science. The scenario analysis, described in **Subsection 4.3**, summarizes how the watershed will respond to potential future scenarios in comparison to the benchmarks. **Section 6** uses indicators to evaluate the success of implementation through a watershed monitoring program. The indicators identified in **Section 6** will track watershed conditions relative to the benchmarks discussed in **Table 2**. Where a monitoring station is referenced in **Table 2**, see **Figure 7** for the location of that monitoring station within the watershed.

TABLE 2:
Current Watershed Conditions Benchmarks

<table>
<tr><th>Key Watershed Issues</th><th>Sub-Issue</th><th>Benchmarks</th><th>Guideline or Rating Scale (if applicable)</th></tr>
<tr><td rowspan="4">WATER RESOURCE SYSTEM</td><td>Aquatic Health</td><td>Family Biotic Index (FBI)[8]– rating of fairly poor and poor across Carruthers Creek:
Poor = 6.59 (Average from 2013 – 2017 at monitoring station Aquatic 1)
Fairly poor = 6.19 (Average from 2013 - 2017 at monitoring station Aquatic 2)
Fairly poor = 6.07 (Average from 2013 - 2017 at monitoring station Aquatic 3)
Index of Biotic Integrity (IBI)[9]:
Rating of poor at three sites (2015)
Rating of fair at two sites (2015)
Rating of good at six sites (2015)</td><td>Rating scale for FBI:<table><tr><th>Value</th><th>Rating</th></tr><tr><td>0 – 3.75</td><td>Excellent</td></tr><tr><td>3.76 – 4.25</td><td>Very good</td></tr><tr><td>4.26 – 5.00</td><td>Good</td></tr><tr><td>5.01 – 5.75</td><td>Fair</td></tr><tr><td>5.76 – 6.50</td><td>Fairly poor</td></tr><tr><td>6.51 – 7.25</td><td>Poor</td></tr><tr><td>7.26 – 10</td><td>Very poor</td></tr></table>Rating scale for IBI:<table><tr><th>Value</th><th>Rating</th></tr><tr><td>≥ 38</td><td>Very good</td></tr><tr><td>28 – 37.9</td><td>Good</td></tr><tr><td>20 – 27.9</td><td>Fair</td></tr><tr><td>≤20</td><td>Poor</td></tr></table></td></tr>
<tr><td>Riparian corridor (30 m buffer around streams)</td><td>Within the riparian corridor natural cover is 49%</td><td>75% of stream length is naturally vegetated</td></tr>
<tr><td>Streamflow (surface water)</td><td>Carruthers Creek at Achilles Road had an average total volume of 1.14 x 10^7 m^3 over the 2008 – 2016 period. This corresponds to a discharge rate of 0.360 m^3/s when averaged on an annual basis</td><td>Not applicable (should not vary significantly from natural fluctuations year to year)</td></tr>
<tr><td>Groundwater Recharge</td><td>Average recharge rate is estimated at 118 mm/year</td><td>Not applicable (should not decrease significantly from natural rates)</td></tr>
<tr><td></td><td>Groundwater Discharge</td><td>Average discharge rate is estimated at 130 mm/year</td><td>Not applicable (should not decrease significantly from natural rates)</td></tr>
</table>

[8]The Family Biotic Index is often used to assess the quality of water in rivers and is a scale for showing the quality of an environment by indicating the types of organisms present in it.

[9]The Index of Biotic Integrity measures a chosen set of metrics (in this case number of fish species, presence of sensitive fish species, abundance and food chain classifications) to assign a rating of very good to poor.

<table>
<tr><th>Key Watershed Issues</th><th>Sub-Issue</th><th>Benchmarks</th><th>Guideline or Rating Scale
(if applicable)</th></tr>
<tr><td rowspan="5">NATURAL HERITAGE SYSTEM</td><td>Natural cover</td><td>Approximately 25% total natural cover, consisting of 9% forest, 7% wetland, 4% successional (transitioning to forest), and 3% meadow</td><td>Minimum 30% natural cover.

TRCA recommended NHS for Carruthers Creek: 36% natural cover; 16% forest, 7% wetland, 13% other (primarily successional forest and meadow)</td></tr>
<tr><td>Habitat quality</td><td>Evaluated using Landscape Analysis Model (LAM), which assigns a score based on total number of habitat patches, patch size, patch shape, and influences from surrounding land uses. Overall patch quality in the Carruthers Creek watershed was found to be ‘poor’</td><td>Rating scale:<table><tr><th>Patch Score</th><th>Quality Condition</th></tr><tr><td>13 – 15</td><td>Excellent</td></tr><tr><td>11 – 12</td><td>Good</td></tr><tr><td>9 – 10</td><td>Fair</td></tr><tr><td>6 – 8</td><td>Poor</td></tr><tr><td>0 – 5</td><td>Very poor</td></tr></table></td></tr>
<tr><td>Animal (i.e. fauna) species of concern</td><td>North of Taunton Road = 39

South of Taunton Road = 56</td><td>Not applicable (ideally maintained or improved)</td></tr>
<tr><td>Number and area of sensitive vegetation communities</td><td>Entire watershed number = 43

Area = approximately 54 hectares</td><td>Not applicable (ideally maintained or improved)</td></tr>
<tr><td>Tree and Shrub Canopy (urban forest)</td><td>Approximately 23% tree and shrub canopy for the entire watershed (2017)</td><td>Not applicable (targets to be established through management recommendation 3.3.2)</td></tr>
<tr><td rowspan="2">WATER QUALITY (SURFACE)

Water quality benchmarks are based on average concentration of 17 water quality samples collected monthly from June 2015 to May 2016.</td><td>Chlorides</td><td>• 183 mg/L at monitoring station Water Quality 1
• 72 mg/L at monitoring station Water Quality 2
• 35 mg/L at a no longer active monitoring station that was located west of Salem Road at Hwy 7</td><td>The long-term water quality guideline for the protection of aquatic life (CCME) for chlorides is 120 mg/L</td></tr>
<tr><td>Total suspended solids</td><td>• 20 mg/L at monitoring station Water Quality 1
• 11 mg/L at monitoring station Water Quality 2
• 59 mg/L at a no longer active monitoring station that was located west of Salem Road at Hwy 7</td><td>CCME water quality guideline for TSS is based on increases over background levels. Monitoring results show large fluctuations in TSS in Carruthers Creek.</td></tr>
</table>

Key Watershed Issues	Sub-Issue	Benchmarks	Guideline or Rating Scale (if applicable)
WATER QUALITY (SURFACE) cont'd	*E. coli*	• 706 CFU/100 ml at monitoring station Water Quality 1 • 517 CFU/100 ml at monitoring station Water Quality 2 • 475 CFU/100 ml at a no longer active monitoring station that was located west of Salem Road at Hwy 7	CFU – Colony Forming Units. Provincial Water Quality Objective (PWQO) for E. coli is 100 CFU/100 ml. Averages for Carruthers Creek exceed this guideline
	Total phosphorus	• 0.044 mg/L at monitoring station Water Quality 1 • 0.031 mg/L at monitoring station Water Quality 2 • 0.091 mg/L at a no longer active monitoring station that was located west of Salem Road at Hwy 7	PWQO to avoid excessive plant growth in river and stream concentrations below 0.03 mg/L. Averages for Carruthers Creek exceed this guideline
	Stormwater management[10]	As of 2003, approximately 64% of the developed portion of the watershed has stormwater controls that meet TRCA criteria. Of the remaining percentages, 29% have no stormwater controls and 7% have water quantity control only	Established by municipalities, in collaboration with TRCA, through stormwater master planning and secondary planning
NATURAL HAZARDS	Peak flows (flooding)	Regional Storm (i.e. Hurricane Hazel) • 71.61 m^3/s at Taunton Road • 140.52 m^3/s at Shoal Point Road 5-year Storm (i.e. 1 in 5 probability of flow being exceeded in any one year) • 7.27 m^3/s at Taunton Road • 11.00 m^3/s at Shoal Point Road	Not applicable (peak flows should not increase)
	Flood vulnerable roads and structures	Metres of impassable road length affected: • Average annual = 91 m • Regulatory flood event = 2,532 m Number of households affected: • Average annual = 1 • Regulatory flood event = 89	Not applicable (ideally a reduction in vulnerable roads and structures)

Notes: See **Section 6** for map and description of monitoring station locations referenced in this table. Other surface water quality parameters were characterized as part of TRCA's technical analysis, but only parameters of concern are included in this table.

[10]For the purposes of determining the current state of the watershed, stormwater management has been grouped with water quality. However, inadequate stormwater management can also increase the frequency and duration of flooding (i.e. natural hazards) and impact aquatic habitat (i.e. WRS).

4. Future Watershed Conditions

An important part of watershed planning is assessing future conditions based on potential future land use scenarios. The results of watershed characterization discussed in **Section 3** were used to inform the potential future land use scenarios discussed in this section. TRCA produced peer-reviewed technical reports on different components of the watershed as part of scenario analysis, which are referenced in **Section 9**.

4.1 FUTURE STRESSORS

To determine what land use scenarios to assess requires identifying potential future stressors on a watershed. For Carruthers Creek, urbanization continues to drive land use change, converting natural and agricultural areas to residential, commercial, and industrial lands. This urbanization impacts the health of a watershed largely through the loss of natural cover and increase in impermeable surfaces, which alter the hydrologic regime. Despite some positive watershed management efforts to date in Carruthers Creek, the watershed exhibits signs of stress due to the impacts of urbanization and climate change. By 2051, the population of the Region of Durham is expected to nearly double from 682,000 to 1.3 million. Some of that growth will certainly be in the Carruthers Creek watershed.

Climate change is expected to increase precipitation, annual average temperatures and the frequency of extreme weather events, which will impact watersheds within the Region of Durham. Some of the implications of a changing climate include localized flooding, violent storm damage, changes to ecosystem composition, and changes to agricultural conditions and production.

These stressors were evaluated as part of assessing future watershed conditions. The management framework in **Section 5** of this watershed plan recognizes these stressors by identifying recommendations to mitigate potential future watershed impacts.

4.2 FUTURE SCENARIOS

An effective way to assess how a watershed will respond to potential future change is to develop, analyze, and compare several alternate scenarios, each reflecting a different composition of possible land use conditions. In this way, land use scenario analysis is used as a tool to compare how possible future land uses might add to existing pressures on the natural system, and how these pressures might affect watershed health. Land use scenario analysis is a technical exercise that is typically undertaken when developing watershed plans to ensure management recommendations are based on the best available science. The results help guide the development of management recommendations and support municipalities in land use and infrastructure planning decision-making.

Climate Change

Climate change was incorporated into the scenario analysis for various technical components of this watershed planning process, where possible. For example, the terrestrial impact assessment completed as part of the NHS planning specifically incorporated climate change vulnerabilities as one of its criteria for determining priority NHS sites. The impacts of future climate change were factored into potential stresses on the aquatic system as part of that technical assessment. Additionally, hydrologic modelling completed as part of this watershed planning process incorporates storm events considered to be more frequent under climate change scenarios.

The management framework recognizes the importance of climate change by prioritizing the protection of the WRS and NHS, which can, if properly protected and restored, improve climate adaptation and increase ecosystem resilience. The use of green infrastructure and low impact development combined with improvements to stormwater infrastructure are also important management recommendations to adapt to a changing climate.

TRCA, the Region of Durham, Town of Ajax, and City of Pickering all recognize the challenge of climate change and have various strategies and action plans to address this challenge, in addition to the recommendations identified in this watershed plan (e.g. *Durham Community Climate Adaptation Plan* and *Durham Community Climate Change Local Action Plan*).

Note:
Climate change projections to 2100 for TRCA's jurisdiction and the Region of Durham are available through their respective open data portals.

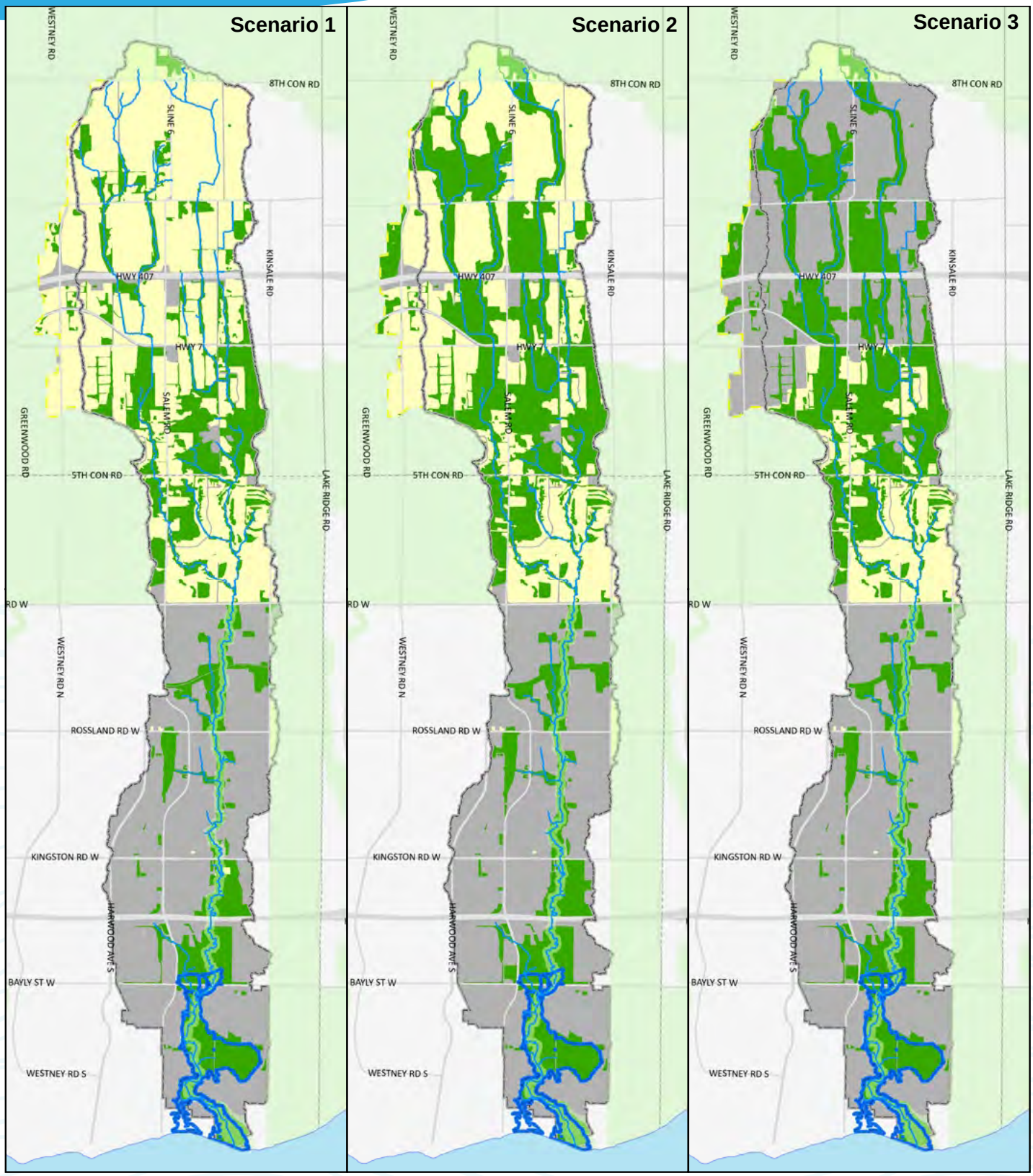
Three potential future land use scenarios were developed and analyzed as part of this watershed planning process to assess possible changes and impacts in both the built and natural environments. The year 2015 was used as the baseline for this watershed planning process due to the availability of data sets at the initiation of this project. It is worth noting that since 2015 was used as the baseline for scenario analysis, potential impacts from the extension of Highway 407 (completed in 2016) through the headwaters of Carruthers Creek can only be assumed. Ongoing monitoring of the Carruthers Creek watershed will help determine any potential changes to overall watershed health arising from the construction of this highway infrastructure.

TABLE 3:
Potential Future Land Use Scenarios

Scenario 1 (+Official Plan)	This scenario assumes that all lands south of the Greenbelt are developed up to 2031 based on approved Official Plans. This scenario included municipally designated NHS's that were part of Official Plans. This scenario provides insight into how watershed conditions will likely change as approved Official Plans are implemented.
Scenario 2 (+NHS)	This scenario assumes the same development as Scenario 1 but includes the enhanced NHS (i.e. potential natural cover). New and updated information from natural heritage science and practice was incorporated to identify potential areas for natural cover that would improve ecosystem functions and services in the future. This scenario provides insights into how watershed conditions will likely change with increased consideration of additional natural cover.
Scenario 3 (+Potential Urban)	This scenario assumes post-2031 development in the headwaters of Carruthers Creek (north of the Greenbelt), outside the enhanced NHS. This scenario made general assumptions on the types of land uses associated with typical urbanization. It did not make assumptions on the levels of stormwater management controls or other mitigation measures (e.g. green infrastructure) that may accompany urban development. This level of analysis would be done during subsequent planning stages when detailed land use configurations are known. This scenario provides insights into how watershed conditions will likely change if potential full growth is approved in the watershed.

See **Figure 5** for representative maps of each scenario.

FIGURE 5:
Future Scenarios Mapping



Toronto and Region Conservation Authority

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Carruthers Creek Watershed Plan: Future Scenarios 1-3

0 0.5 1 2 3 KM

100

- Municipal Boundary
- Watercourse

Land Use

- Natural
- Rural
- Urban
- Flood Vulnerable Cluster
- Greenbelt Boundary
- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study Area

4.3 SCENARIO ANALYSIS

As part of this watershed planning process, key components of watershed health were assessed using the previously discussed three future scenarios.

The results of these scenario analyses were used to:

1. Understand the implications of each scenario on overall watershed health and integrity.

2. Develop the management framework for this Carruthers Creek Watershed Plan, which can be used to inform land use and infrastructure decisions.

It is important to note that scenario analysis does not result in decisions about the type and configuration of land uses. Instead, scenario analysis helps to inform decisions through the municipal planning process (e.g. Official Plans).

It is the responsibility of the applicable municipality to determine the ultimate land use configuration for any future changes within the watershed.

Appropriate mitigation strategies are developed during the detailed planning stages for new developments once the scope of any future land use change is known. These mitigation strategies include assessments of the appropriate levels of stormwater controls, the use of green infrastructure to maintain natural water balance as much as possible, and opportunities for ecological restoration.

Table 4 explains the implications of the three potential future scenarios for each of the key watershed issues as identified in **Subsection 3.3**. Based on the technical assessments completed as part of this watershed planning process, **Table 4** identifies whether the watershed responds positively (conditions improve), neutrally (conditions remain the same), or negatively (conditions deteriorate) to the potential future scenario in comparison to the identified benchmark.

The colour coding in **Table 4** indicates the severity of how the watershed component reacts:

GREEN UP ARROW: >+5% change
indicates watershed conditions improve from a hydrologic or ecological perspective

EQUAL SIGN: 0 to +5% or 0 to -5% change
indicates a roughly equal comparison from a hydrologic or ecological perspective

YELLOW DOWN ARROW: -6% to -10% change
indicates watershed conditions deteriorate from a hydrologic or ecological perspective

PURPLE DOWN ARROW: >-10% change
indicates watershed conditions significantly deteriorate from a hydrologic or ecological perspective

The changes identified in **Table 4** are calculated by comparing scenario 1 to the current conditions, whereas scenarios 2 and 3 are compared to scenario 1. Since scenario 1 represents the currently approved Official Plan, it represents a future scenario that will occur, therefore it is more realistic to compare scenarios 2 and 3 to scenario 1. Some of the scenario analysis technical reports referenced in **Section 9** compare the three future scenarios to current conditions. The numbers identified in **Table 4** have been adapted accordingly to compare scenarios 2 and 3 to scenario 1.

TABLE 4:
Scenario Analysis Implications

WATER RESOURCE SYSTEM

Includes: the features and areas of the WRS, including aquatic habitat, and their functions. Percent change is based on changes to impervious cover mentioned under aquatic health. Impervious cover is a critical measure of various factors[11] that impact aquatic health.

See **Figure 9** in **Section 7** for an illustration of subwatershed quality.

CURRENT CONDITIONS (From subsection 3.3[12])	SCENARIO 1 (+OP) (Compared to Current Conditions)	SCENARIO 2 (+NHS) (Compared to Scenario 1)	SCENARIO 3 (+POTENTIAL URBAN) (Compared to Scenario 1)
% change →	↓ -6%	= +1%	↓ -12%
Aquatic Health			
Subwatershed quality: NW and NE good – fair; central and south fair – poor Impervious cover at 24% across the watershed	**Subwatershed quality:** no change from current conditions Impervious cover at 30% across the watershed	**Subwatershed quality:** NW shows improvement to good Impervious cover at 29% across the watershed	**Subwatershed quality:** all four have fair – poor conditions Impervious cover at 42% across the watershed
Riparian corridor (30 m buffer along streams)			
49% natural cover along the corridor	50% natural cover along the corridor	65% natural cover along the corridor	65% natural cover along the corridor
Streamflow (average surface water discharge)			
0.52 m^3/s	0.53 m^3/s	0.53 m^3/s	0.56 m^3/s
Groundwater discharge (average rate)			
201 mm/year	197 mm/year	201 mm/year	194 mm/year
Groundwater recharge (average rate)			
152 mm/year	147 mm/year	152 mm/year	141 mm/year

[11]These factors include channel stability, water quality, stream biodiversity, and natural flow. See the Aquatic Impact Assessment technical report for more information.

[12]The numbers for streamflow, groundwater discharge, and recharge are different in **Table 4** from **Table 2** due to models used for the scenario analysis.

NATURAL HERITAGE SYSTEM

Includes: the the features and areas of the NHS, including terrestrial habitat and their functions. Percent change is based on an equally weighted average of the total natural cover and habitat quality values.

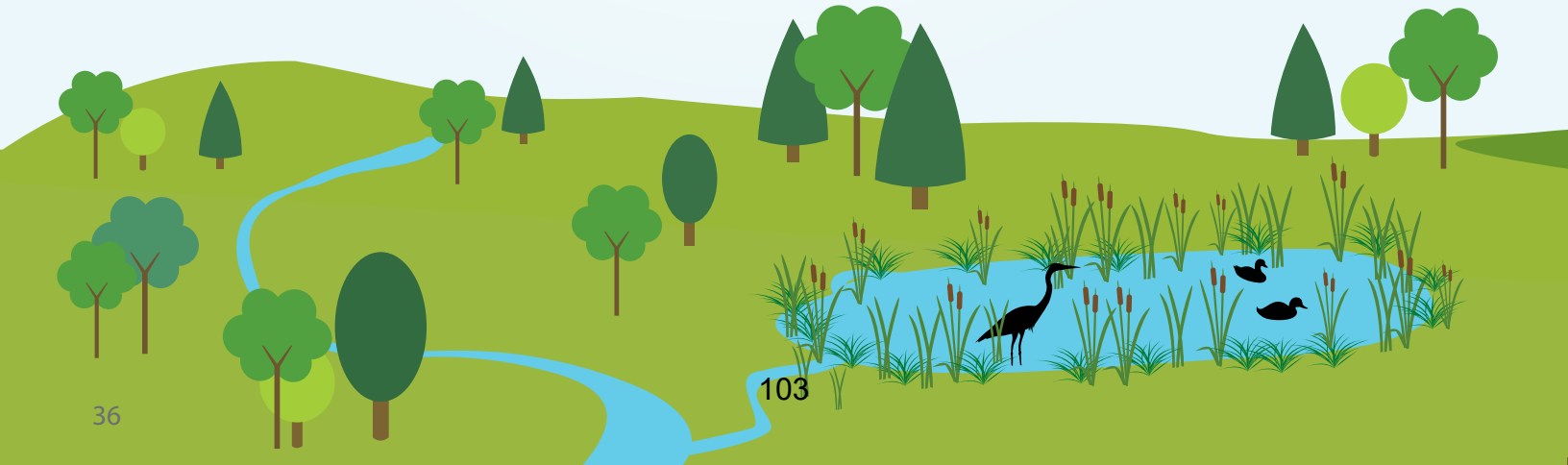
CURRENT CONDITIONS (From subsection 3.3)	SCENARIO 1 (+OP) (Compared to Current Conditions)	SCENARIO 2 (+NHS) (Compared to Scenario 1)	SCENARIO 3 (+POTENTIAL URBAN) (Compared to Scenario 1)
% change →	= 0%	↑ +7%	↑[13] +6%
Total natural cover			
25% natural cover	25% natural cover	36% natural cover	36% natural cover
Habitat quality (average LAM[14] score)			
7.6	7.5	7.9	7.6
Habitat connectivity (regional at watershed-scale)[15]			
28%	28%	45%	45%
Climate vulnerabilities (average of five high vulnerabilities indicators)[16]			
51%	51%	55%	55%

[13]While habitat quantity (as represented by natural cover) increases under scenario 3 relative to scenario 1, the habitat quality results require a caveat. LAM scores are an equally rated average of patch size, shape, and matrix influence. Under scenario 2, the matrix influence score increases threefold from scenario 1, indicating improved habitat quality. Under scenario 3, the matrix influence score decreases, indicating decrease in habitat quality. So, while patch size and shape increase under scenarios 2 and 3, scenario 3 negatively affects the matrix influence of habitat quality.

[14]These LAM scores, known as Landscape Analysis Model, combines the metrics of patch size (larger patches support larger populations), patch shape (habitat fragmentation) and matrix influence (influence of surrounding land uses). A LAM score of 6 – 8 = poor. See the Terrestrial Impact Assessment technical report for more information.

[15]Habitat connectivity values represent the percentage of area for connectivity priorities that overlap with the proposed enhanced NHS. Improved connectivity has benefits for habitat quantity and quality. In other words, higher percentages indicate more habitat connectivity corridors.

[16]The average high vulnerability indicators are ground surface temperature, climate sensitive community, habitat patch quality, soil drainage, and wetlands. The climate vulnerabilities values represent the percentage of climate vulnerable features represented in the proposed enhanced NHS. A higher percentage indicates more habitat included in the system, and therefore, if protected, improved resiliency to climate change.



WATER QUALITY[17]

Focused on parameters of concern associated with urbanization and agricultural land uses. Amounts are based on a comparison of 2005 to 2015 average flow.

CURRENT CONDITIONS (From subsection 3.3)	SCENARIO 1 (+OP) (Compared to Current Conditions)	SCENARIO 2 (+NHS) (Compared to Scenario 1)	SCENARIO 3 (+POTENTIAL URBAN) (Compared to Scenario 1)
% change →	It is difficult to draw a conclusion on the percent change for water quality solely. As mentioned in the WRS row of this table, water quality is one of the factors considered under the impacts of impervious cover. Of the parameters of concern identified in Table 2, TSS and total phosphorus were assessed as part of scenario analysis.		
Total Suspended Solids[18]			
4,602 tonnes	4,674 tonnes	4,641 tonnes	4,939 tonnes
Total Phosphorus[19]			
9,843 tonnes	9,864 tonnes	9,295 tonnes	8,602 tonnes

[17]Stream water quality in urbanized watersheds is generally degraded by increased turbidity, nutrients, metals, *E. coli*, and other contaminants due to more impervious surfaces and increased runoff. See the Aquatic Impact Assessment technical report for more information.

[18]**Table 2** in **Subsection 3.3** identified TSS readings at three monitoring stations in mg/L. For the purposes of scenario analysis, TSS was measured in tonnes at the outlet of the watershed (i.e. where it drains into Lake Ontario).

[19]**Table 2** in **Subsection 3.3** identified total phosphorus readings at three monitoring stations in mg/L. For the purposes of scenario analysis, total phosphorus was measured in tonnes at the outlet of the watershed (i.e. where it drains into Lake Ontario).

NATURAL HAZARDS
(Flooding and Erosion)

Focused on flood modelling as measured by peak flows[20]. Percent change is based on the Regional Storm (i.e. Hurricane Hazel) at two points in the watershed. The Regional Storm for TRCA's jurisdiction is based on a historical storm of record, Hurricane Hazel. Design storms are based on statistical analysis of rainfall over a period of record. Hurricane Hazel is a 12-hour event with 212 mm of rainfall, which assumes completely saturated soils.

CURRENT CONDITIONS (From subsection 3.3)	SCENARIO 1 (+OP) (Compared to Current Conditions)	SCENARIO 2 (+NHS) (Compared to Scenario 1)	SCENARIO 3 (+POTENTIAL URBAN)[21] (Compared to Scenario 1)
% change at Taunton Road →	= +2%	= +2%	↓ -113%
% change at Shoal Point Road	↓ -6%	= +2%	↓ -41%
Regional Storm (i.e. Hurricane Hazel)			
71.61 m^3/s at Taunton Road	69.90 m^3/s at Taunton Road	68.59 m^3/s at Taunton Road	148.84 m^3/s at Taunton Road
140.52 m^3/s at Shoal Point Road	149.50 m^3/s at Shoal Point Road	147.19 m^3/s at Shoal Point Road	210.63 m^3/s at Shoal Point Road
5-year Storm (i.e. 1 in 5 probability of flow being exceeded in any one year)[22]			
7.27 m^3/s at Taunton Road	7.18 m^3/s at Taunton Road	6.58 m^3/s at Taunton Road	6.80 m^3/s at Taunton Road
11.00 m^3/s at Shoal Point Road	11.71 m^3/s at Shoal Point Road	11.11 m^3/s at Shoal Point Road	11.83 m^3/s at Shoal Point Road

[20]Peak flows are the maximum rate of discharge during the period of runoff caused by a storm. Potential erosion issues were not assessed. However, erosion is likely to be worse with increased peak flows.

[21]All existing stormwater management facilities were removed from the model to account for the system failing or being at capacity during a Regional Storm event.

[22]The 5-year event uses a 60.07 mm rainfall event over a 24-hour period, which assumes an average (normal) soil condition.

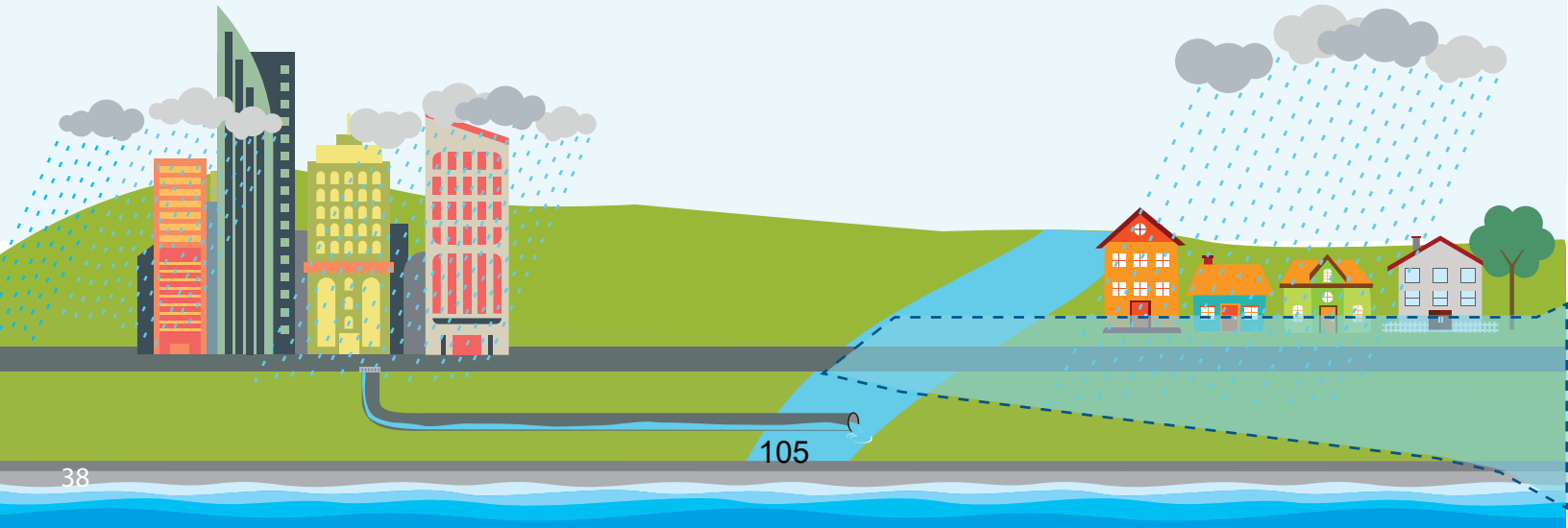


Table 4 illustrates expected changes to watershed conditions based on available information and assessments conducted as part of this watershed planning process. The management framework in **Section 5** identifies what is necessary to protect, enhance, and restore watershed conditions. It also identifies management recommendations to encourage more sustainable land uses.

Summary of implications:

	Scenario 1	Scenario 2	Scenario 3
WATER RESOURCE SYSTEM	Aquatic conditions remain relatively poor, similar to existing conditions, and there is an increase in impervious cover across the watershed.	One of the four subwatersheds shows improved aquatic conditions.	All four subwatersheds have fair-poor aquatic conditions, likely resulting in the loss of Redside Dace, a listed endangered species.
NATURAL HERITAGE SYSTEM	Natural cover and habitat quality remain similar to current conditions.	Natural cover increases and habitat quality improves.	Natural cover increases, but habitat quality does not improve by as much as scenario 2.
WATER QUALITY	Slight increases in both total suspended solids and total phosphorus.	Total phosphorus and total suspended solids decrease.	Total suspended solids increase, total phosphorus decreases.
NATURAL HAZARDS	Peak flows do not significantly change from current conditions (i.e. increases and decreases at Taunton and Shoal Point Roads under the Regional and 5-year storm events).	Peak flows decrease slightly at Taunton and Shoal Point Roads under the Regional and 5-year storm events.	Peak flows significantly increase at Taunton and Shoal Point Roads under the Regional and 5-year storms; more so for the former.

What does this mean?

These results demonstrate the importance of ensuring that land use and infrastructure planning decisions are made to minimize and mitigate impacts to the watershed regardless of potential future land use configurations. The management framework in Section 5 outlines the goals, objectives, indicators, and management recommendations necessary to ensure the long-term health and sustainability of the watershed.

The results of this scenario analysis emphasize the importance of protecting, enhancing, and restoring the WRS (**Subsection 5.2**) and NHS (**Subsection 5.3**).

In addition to the summary of implications, it is important to recognize the following:

- Limiting impervious cover in any potential future growth areas, or through redevelopments, provides significant benefits to aquatic biodiversity. Federal guidance recommends urbanizing watersheds maintain less than 10% impervious land cover, while already degraded urban systems should not exceed a second threshold of 25% to 30%. Scenario 1 shows impervious cover reaching this 30% threshold with only a marginal improvement to 29% under Scenario 2. See **Figure 9** in **Section 7** for more information.
- Increasing natural cover and improving habitat quality has noticeable benefits for the watershed (e.g. improvements to aquatic conditions and slight reductions of peak flows).
- Ecological restoration and improvements to land use practices (e.g. increased use of green infrastructure and improved stormwater management) could address existing water quality issues.
- The existing flooding and erosions issues can be mitigated through improved land uses (e.g. green infrastructure) and infrastructure (e.g. stormwater management) as outlined in the management recommendations of **Subsection 5.1**. In the event of future development in the headwaters of Carruthers Creek, it will be vital to develop mitigation strategies to limit the impacts of further urbanization by implementing the management recommendations outlined in **Subsection 5.4**.

The management framework is designed to address existing issues and the implications of these scenarios by accounting for new developments, redevelopments, and prioritizing the importance of protecting, enhancing, and restoring both the WRS and NHS.

5. Management Framework

The management framework for the Carruthers Creek Watershed Plan represents what needs to be done to protect, enhance, and restore watershed health[23]. The management framework consists of goals, objectives, indicators, and management recommendations.

TRCA developed this management framework in collaboration with its municipal partners and refined it based on feedback from stakeholders and the public.

The goals, objectives, and management recommendations were developed to address the issues identified through watershed characterization and account for potential different future land use scenarios. Many of the management recommendations are expected to mitigate many of the potential impacts associated with potential land use changes, as identified through the scenario analysis.

Each of the goals are complementary, with no one goal being more important than another. To fully realize the vision for Carruthers Creek will require the implementation of each goal area. Management recommendations were grouped under the most appropriate objective and are also listed in no particular order.

Any recommendations contained in the scenario analysis technical reports are consolidated in this management framework. Refer to the technical reports for detailed methodologies and findings beyond what was summarized in **Sections 3** and **4**. This watershed plan is the final source for goals, objectives, indicators, and management recommendations related to Carruthers Creek. Readers are encouraged to refer to the technical reports for more detailed implementation suggestions.

[23]As mentioned in **Subsection 1.1**, the CTC Source Protection Plan also applies in the Carruthers Creek watershed and includes policies to protect drinking water. Implementation of this Source Protection Plan is required under the *Clean Water Act, 2006*. Consideration of Great Lakes agreements and legislation is also important for effective watershed management. These requirements are in addition to, and complementary of, the management framework identified in this watershed plan.

TABLE 5:
Management Framework Explanation

Management Framework Components	Description
GOALS	Represent the outcomes to achieve.
OBJECTIVES	Are the specific statements about desired results, or steps to be undertaken, to achieve the goal.
INDICATORS	Explain how progress on implementing the objective is going to be tracked or measured. Some indicators are compared to the benchmarks identified in **Table 2**. Other indicators are about reporting on implementation progress as it relates to policies, best practices, or infrastructure improvements and do not have an associated benchmark in **Table 2**. Where applicable, the guidelines identified in **Table 2** can be used as a measure to achieve.
MANAGEMENT RECOMMENDATIONS	Specifically explain what should be done to accomplish the relevant objective.

The management framework consists of three goals, nine objectives, and 11 indicators (see **Figure 6**). The management recommendations for each goal area are described in **Subsections 5.1 – 5.3**.

The management recommendations apply to the entire watershed, identifying opportunities to improve conditions in the developed portion of the watershed and the types of studies and best practices that should be utilized for any potential future development, or redevelopment. **Subsection 5.4** summarizes recommendations that would specifically apply to any potential Settlement Area Boundary Expansion in the headwaters of Carruthers Creek.

FIGURE 6:
Overview of Management Framework

GOAL 1

Land Use

Achieve sustainable land use and infrastructure development patterns to protect, enhance, and restore water quality and maintain stable water balance.

OBJECTIVE 1
Minimize the impacts of land uses through sustainability policies and the use of low impact development and green infrastructure.

Indicators:
Report on implementation of sustainable development policies/standards.

OBJECTIVE 2
Install and upgrade stormwater infrastructure using best available technologies to reduce runoff; resulting in improved water balance and water quality.

Indicators:
Report on the status of stormwater management.

OBJECTIVE 3
Manage the risks of natural hazards through appropriate mitigation measures and restoration.

Indicators:
Reduce number of flood vulnerable structures and roads.

OBJECTIVE 4
Encourage the use of agricultural best management practices to minimize agricultural runoff and improve rural land stewardship.

Indicators:
Work with the agricultural community to track implementation of best management practices.

GOAL 2

Water Resource System

Protect, enhance, and restore the areas and features that make up the Water Resource System (including aquatic habitat) for ecosytem resilience and sustainabilty.

OBJECTIVE 1
Implement appropriate policies and programs that protect, enhance, and restore the areas and features that comprise the Water Resource System.

Indicator:
Appropriate policy designations are in place for the Water Resourse System.

OBJECTIVE 2
Promote aquatic habitat connectivity to faciltate native fish movement throughout the watershed.

Indicator:
Maintain, or improve, aquatic health rankings.

GOAL 3

Natural Heritage System

Protect, enhance, and restore the Natural Heritage System and urban forest within the watershed to improve ecosystem resilience and sustainability.

OBJECTIVE 1
Improve the quality and quantity of the Natural Heritage System across the watershed through ecosystem protection, enhancement, and restoration, and implementation of relevant policies.

Indicators:
Increase total natural cover in the watershed.

Appropriate policy designations are in place for the Natural Heritage System.

OBJECTIVE 2
Ensure habitat exists for native terrestrial species to thrive throughout the watershed.

Indicators:
Maintain, or increase, the number and area of species and vegetation communities of concern.

OBJECTIVE 3
Increase the urban forest cover within the developed portion of the watershed to improve social and environmental well-being.

Indicator:
Increase total tree canopy in the watershed.

5.1 LAND USE / INFRASTRUCTURE GOAL

GOAL 1

Achieve sustainable land use and infrastructure development patterns to protect, enhance, and restore water quality and maintain stable water balance.

This goal area focuses on the policy, land use, and infrastructure planning processes that influence the health of the watershed. The management recommendations are numbered to correspond with their applicable goal and objective.

TABLE 6:
Land Use Management Recommendations

Land Use Objective	Management Recommendations
LAND USE OBJECTIVE 1 Minimize the impacts of land uses through sustainability policies and the use of low impact development and green infrastructure.	**1.1.1** Lower-tier municipalities, in collaboration with the Region of Durham and TRCA, to adopt green development policies, or standards, and require new developments, and redevelopments, to utilize low impact development and green infrastructure techniques to limit the impacts of increased impervious cover. The following shall apply to any municipal policies, or standards, in particular within ESGRAs, as identified on **Map 1B** a. new developments shall minimize impervious cover and strive to achieve 90th percentile volume control of annual rainfall b. redevelopments shall minimize impervious cover and strive to achieve 75th percentile volume control of annual rainfall
	1.1.2 The Region of Durham and lower-tier municipalities, in collaboration with TRCA, to develop mechanisms to track and report on implementation of sustainable development practices to assess the effectiveness of policies and standards.
	1.1.3 If it is determined that a Settlement Area Boundary Expansion is required in the headwaters of Carruthers Creek, the Region of Durham, in collaboration with the lower-tier municipalities and TRCA, will identify, based on consensus between the identified parties, the subsequent planning processes and further studies and assessments, that would be required to implement any such expansion. These requirements should be reflected as policies within the Regional Official Plan and include the requirement for the preparation of a secondary plan and a subwatershed plan (or equivalent), which would be supported by, at a minimum, the following studies, assessments, and further considerations: a. a hydraulic assessment b. how natural hazards will be assessed and mitigated (i.e. the risk of flooding and erosion will not increase) c. how the Natural Heritage System and Water Resource System will be protected, enhanced, and restored d. how water quality and quantity will be protected e. how flood mitigation solutions will be funded, including identification of the responsible parties for providing the funding. This includes the cost of any necessary studies, engineering design, and actual construction/maintenance of flood mitigation works

Land Use Objective	Management Recommendations
LAND USE OBJECTIVE 1 cont'd	**1.1.4** During planning for transportation infrastructure improvement projects, or new projects, the Region of Durham and lower-tier municipalities to implement best management practices for design, expansions and widenings in accordance with TRCA's *Crossing Guideline for Valley and Stream Corridors*, and ensure consistent policies and standards are in place to facilitate hydraulic function (e.g. prevent flooding) and ecological connectivity (e.g. wildlife passage). See **Map 3** for priority crossings.
	1.1.5 Lower-tier municipalities to improve the management of excess soils and prevent fill deposition that is incompatible with the soils and hydrology of the area by: a. ensuring adequate policies and bylaws are in place to manage excess soil b. improving compliance and enforcement of policies through collaboration between TRCA and municipalities c. conducting education and outreach on: i. the importance of proper soil management ii. existing regulatory requirements iii. regulatory responsibilities of various agencies, including who to contact with concerns d. collaborating with agencies and other levels of government, including the Region of Durham, to ensure infrastructure projects that generate, or receive excess soil follow best management practices
	1.1.6 The Region of Durham and lower-tier municipalities, in collaboration with other levels of government and TRCA, to work to reduce the amount of chlorides entering the watershed by: a. continuing to implement best management practices for winter de-icing procedures on public property b. continuing education and outreach on salt management for private property
	1.1.7 TRCA, in collaboration with the Town of Ajax, to identify and promote opportunities for sustainable community retrofits in priority planting neighbourhoods (See **Map 8**).

Land Use Objective	Management Recommendations
LAND USE OBJECTIVE 2 Install and upgrade stormwater infrastructure using best available technologies to reduce runoff; resulting in improved water balance and water quality.	**1.2.1** Lower-tier municipalities, in collaboration with the Region of Durham and TRCA, through stormwater master planning continue to: a. employ best management practices for stormwater management and consistent design criteria to manage runoff quantity and quality b. consider stormwater funding options for cost recovery and to reduce impervious surfaces in the watershed c. examine opportunities to retrofit outdated stormwater infrastructure and install stormwater controls in areas without controls through long-term planning and investment strategies d. refine existing policies to ensure modern stormwater controls are required e. adaptively manage stormwater infrastructure through operation maintenance schedules and procedures
	1.2.2 Lower-tier municipalities, in collaboration with the Region of Durham and TRCA, to develop mechanisms to track the status and effectiveness of stormwater management infrastructure.
	1.2.3 Lower-tier municipalities to explore opportunities to enhance stormwater management in neighbourhoods with outdated or no stormwater facilities by retrofitting infrastructure to meet modern stormwater design criteria, as much as possible, given site characteristics.
	1.2.4 For new developments, lower-tier municipalities to require hydrologic analysis and erosion threshold assessments downstream of potential stormwater management facilities that need to demonstrate no negative, or adverse, downstream impacts, prior to municipal approvals.
LAND USE OBJECTIVE 3 Manage the risks of natural hazards through appropriate mitigation measures and restoration.	**1.3.1** TRCA, in collaboration with lower-tier municipalities, to prioritize the restoration of the erosion hazard sites identified on **Map 4**. Additional channel restoration, or increased stream bank protection may be required as preventative measures in areas downstream of new developments.
	1.3.2 The Region of Durham and lower-tier municipalities, in collaboration with TRCA, to identify potential hazard risks to sewer and existing road infrastructure associated with in-stream creek erosion and implement strategies to eliminate identified risks.

Land Use Objective	Management Recommendations
LAND USE OBJECTIVE 3 cont'd	**1.3.3** Implement appropriate flood mitigation measures for the Flood Vulnerable Cluster in the Town of Ajax, which could involve: a. reopening, or initiating, a new environmental assessment to provide a more comprehensive list of alternatives to offset impacts associated with potential development in the headwaters b. the application of regional control in the headwaters of Carruthers Creek, if developed, and required by the updated flood modelling (see management recommendation 1.3.5)
	1.3.4 TRCA, in collaboration with the Region of Durham and lower-tier municipalities, to educate property owners in high flood risk areas about proper lot level practices (e.g. removing hydraulic impairments).
	1.3.5 TRCA will continue to complete comprehensive flood plain mapping based on routinely updated hydraulic models and updated land use information to inform municipal planning decisions. Regulatory flood plain mapping is updated based on approved land uses.
LAND USE OBJECTIVE 4 Encourage the use of agricultural best management practices to minimize agricultural runoff and improve rural land stewardship.	**1.4.1** In collaboration with the agricultural community and provincial ministries, TRCA, the Region of Durham and lower-tier municipalities to identify opportunities to expand best management practices that reduce agricultural runoff and improve water management, such as: a. use cover crops and / or leave crop residue b. adopt no till farm practices during non-growing season c. conduct soil testing for nutrients and adjust fertilizer application rates, if required
	1.4.2 In collaboration with the agricultural community, rural land owners, and provincial ministries, TRCA, the Region of Durham, and lower-tier municipalities to identify opportunities to improve rural land stewardship best management practices through: a. natural buffers between agricultural lands and natural and / or water resource features and areas b. implementation of Environmental Farm Plans and other rural land stewardship programs (e.g. TRCA's Rural Clean Water Programs) c. education / outreach about the benefits of utilizing best management practices to improve habitat (e.g. meadows for sensitive bird species)

5.2 WATER RESOURCE SYSTEM GOAL

GOAL 2

Protect, enhance, and restore the areas and features that make up the Water Resource System (including aquatic habitat) for ecosystem resilience and sustainability.

This goal area focuses on ensuring policies are in place for the long-term protection of the WRS and undertaking priority restoration initiatives to benefit the long-term resiliency of the WRS. The WRS is presented in **Map 1A** and **Map 1B**. The areas and features that comprise the WRS are to be protected in accordance with the recommendations laid out in this subsection.

TABLE 7:
WRS Management Recommendations

WRS Objective	Management Recommendations
WRS OBJECTIVE 1 Implement appropriate policies and programs that protect, enhance, and restore the areas and features that comprise the Water Resource System.	**2.1.1** The Region of Durham and lower-tier municipalities, in collaboration with TRCA, to ensure the protection of the Water Resource System (**Map 1A** and **Map 1B**) and its functions, by: a. updating Official Plans and zoning bylaws to protect the Water Resource System b. assessing existing standards and guidelines for land use and infrastructure development to ensure they reflect current provincial policy direction to protect, enhance, and restore the quality and quantity of water c. avoiding development near key hydrologic features through the establishment of appropriate buffers d. requiring the implementation of appropriate mitigation measures where avoidance of key hydrologic areas is not possible, in order to maintain hydrologic functions
	2.1.2 TRCA, in collaboration with the Region of Durham and lower-tier municipalities, to routinely update mapping data layers for all components of the Water Resource System as new information becomes available.

WRS Objective	Management Recommendations
WRS OBJECTIVE 1 cont'd	**2.1.3** TRCA, in collaboration with the Region of Durham and lower-tier municipalities, to prioritize the restoration of the aquatic sites identified on **Map 4**, which have been selected for contributing to the following: a. enhancing habitat quality and watershed connectivity b. ensuring biodiversity persists c. improving watershed resiliency to climate change
	2.1.4 If it is determined that a Settlement Area Boundary Expansion is required in the headwaters of Carruthers Creek, the City of Pickering, in collaboration with the Region of Durham, Town of Ajax, and TRCA, prior to approvals of a secondary plan, to demonstrate through a subwatershed plan (or equivalent) that: a. key hydrologic features will be protected and hydrologic functions maintained b. where avoidance of key hydrologic areas is not possible, appropriate mitigation measures are to be implemented to maintain downstream hydrologic functions c. there will be no negative or adverse downstream effects, such as increased flooding, erosion, or deteriorated water quality through a hydraulic analysis (to quantify and map depth and extent of impacts) and other relevant modelling
WRS OBJECTIVE 2 Promote aquatic habitat connectivity to facilitate native fish movement throughout the watershed.	**2.2.1** TRCA, in collaboration with the Region of Durham and lower-tier municipalities and landowners, to remove the six priority barriers to fish movement identified in **Map 5**
	2.2.2 TRCA, through its application review function, to identify and implement avoidance, conservation, design, and mitigation measures for the protection and / or recovery of native aquatic species, including Redside Dace and its habitat. For activities that affect Redside Dace habitat, consult the *Guidance for Development Activities in Redside Dace Protected Habitat* (MNRF 2016), MECP and DFO to determine requirements under species at risk legislation.

5.3 NATURAL HERITAGE SYSTEM GOAL

GOAL 3

Protect, enhance, and restore the Natural Heritage System and urban forest within the watershed to improve ecosystem resilience and sustainability.

This goal area focuses on improving the quality and quantity of natural systems throughout the watershed. The proposed enhanced NHS identified on **Map 2** is recommended by TRCA to achieve this goal. It will be up to municipalities to adopt a NHS that is consistent with provincial policy and informed by the goals and objectives of the CCWP. The proposed enhanced NHS includes areas with existing natural cover and areas that are targeted to be potential natural cover through restoration. Refinements to the recommended NHS may be considered assuming the scientific analysis is consistent with the goals and objectives of the CCWP. The recommended NHS is designed to move towards the minimum target for natural cover in an urban and urbanizing watershed as established in TRCA's *Terrestrial Natural Heritage System Strategy* (2007) and *How Much Habitat is Enough?* (Environment and Climate Change Canada, 2013). Assuming that the identified potential natural cover areas are restored, the recommended NHS achieves approximately 36% natural cover across the watershed, including approximately 25% forests and successional forests and 7% wetlands, consistent with the minimum targets. A large amount of the land recommended for potential natural cover occurs in the headwaters of Carruthers Creek. If development proceeds in this area, it will be essential to restore and protect (i.e. through securement) an amount of land consistent with the recommended NHS.

To appropriately implement a NHS will require updates to municipal Official Plans, which can then guide future land use decisions to avoid development in the municipally adopted NHS, mitigate any impacts or, where impacts are unavoidable, provide ecosystem compensation. The management recommendations related to the NHS in this subsection are consistent with TRCA's protection hierarchy of avoid, minimize, mitigate, and as a last resort compensate.

Urban forests provide valuable terrestrial habitat, help manage stormwater, provide clean air, and other socio-economic benefits (e.g. regulates local temperatures, improves personal well-being). Including urban forestry under this NHS goal recognizes the integrated nature of natural areas (i.e. NHS) and the ecological value of additional natural cover in parks, on streets, or private property (i.e. urban forests).

TABLE 8:
NHS Management Recommendations

NHS Objective	Management Recommendations
NHS OBJECTIVE 1 Improve the quality and quantity of the Natural Heritage System across the watershed through ecosystem protection, enhancement, and restoration, and implementation of relevant policies.	**3.1.1** The Region of Durham, as part of its Municipal Comprehensive Review, to ensure the protection, enhancement, and restoration of a Natural Heritage System consistent with the goals and objectives of this watershed plan (**Map 2** for recommended NHS) by: a. including existing natural cover areas identified in **Map 2** in the Regional Official Plan b. providing direction to lower-tier municipalities to include policies in their Official Plans to protect, enhance and restore existing natural cover areas as identified in **Map 2** c. recognizing the potential natural cover areas identified in **Map 2** in the Regional Official Plan and providing direction to lower-tier municipalities to include any relevant policies in their Official Plans to enhance and restore potential natural cover areas d. avoiding infrastructure development (i.e. buildings and structures) and minimizing infrastructure linear feature crossings, in a municipally designated enhanced Natural Heritage System e. providing direction to lower-tier municipalities on the establishment of minimum vegetation protection zones along natural heritage features, with the ability of the minimum vegetation protection zone to be confirmed through an appropriate environmental study
	3.1.2 Lower-tier municipalities, in collaboration with TRCA, to ensure the protection, enhancement, and restoration of a Natural Heritage System consistent with the goals and objectives of this watershed plan (**Map 2**), including the target of achieving 36% natural cover across the watershed, by: a. designating in their Official Plans, at a minimum, existing natural cover as identified in **Map 2** b. including policies in their Official Plans to identify enhancement and restoration opportunities for potential natural cover areas as identified in **Map 2** c. assessing existing standards and guidelines for land use and infrastructure development to ensure they reflect current provincial policy direction to maintain, restore, or enhance the municipally designated Natural Heritage System

NHS Objective	Management Recommendations
NHS OBJECTIVE 1 cont'd	**3.1.2 (cont'd)** d. avoiding infrastructure development (i.e. buildings and structures) and minimizing infrastructure linear feature crossings, in a municipally designated enhanced Natural Heritage System e. adopting municipal policies for ecosystem compensation that meet or exceed TRCA's *Guideline for Determining Ecosystem Compensation*, where development in a municipally designated enhanced Natural Heritage System is unavoidable f. applying a minimum vegetation protection zone along natural heritage features at the boundary of a municipally designated enhanced Natural Heritage System. A minimum 30 metre vegetation protection zone is recommended, unless otherwise determined through an appropriate environmental study g. requiring development and site alterations be designed and approved to prevent encroachment into a municipally designated enhanced Natural Heritage System
	3.1.3 TRCA, in collaboration with the Region of Durham and lower-tier municipalities, to prioritize the restoration of the terrestrial sites identified on **Map 4**, which have been selected for contributing to the following: a. increasing habitat quantity b. enhancing habitat quality and connectivity c. ensuring biodiversity persists d. adapting for climate vulnerabilities
	3.1.4 TRCA, in collaboration with the Region of Durham and lower-tier municipalities, to explore opportunities to secure the sites identified on **Map 6** for ecological protection and to increase public land ownership and connectivity along the main channel of Carruthers Creek south of Taunton Road.

NHS Objective	Management Recommendations
NHS OBJECTIVE 1 cont'd	**3.1.5** TRCA, the Region of Durham and lower-tier municipalities to regularly update their trail guidelines and standards for consistency, and to ensure that any new, or modifications to existing trails, use best practices, such as prioritizing the use of boardwalks in sensitive areas (e.g. wetlands), and implementing methods to ensure trail users stay on marked trails (e.g. signage, barriers to humans and dogs, but not other species, and limited access during breeding season).
	3.1.6 TRCA, in collaboration with the Region of Durham and lower-tier municipalities, to minimize impacts to the municipally designated Natural Heritage System from any active recreation and human activity by: a. ensuring proper trail management and signage b. providing education and outreach on the importance of the municipally designated Natural Heritage System c. promoting community stewardship to maintain and monitor the municipally designated Natural Heritage System for improper trail usage (e.g. off-trail compaction and erosion), illegal dumping and invasive species, while encouraging community restoration programs (e.g. tree plantings)
	3.1.7 Wetland water balance studies that demonstrate how the hydrological function of the wetland is to be protected will be undertaken by the landowner for any potential future growth in the areas identified on **Map 7**, or other areas identified during subwatershed planning, prior to applicable planning approvals.
NHS OBJECTIVE 2 Promote terrestrial habitat connectivity to ensure native species thrive throughout the watershed.	**3.2.1** The Region of Durham, lower-tier municipalities, TRCA, landowners, and other agencies will collaborate to manage problematic invasive species.
	3.2.2 TRCA will continue to work with landowners to restore meadow habitat areas in support of open country bird species at risk, in accordance with the terrestrial restoration priorities identified on **Map 4**

NHS Objective	Management Recommendations
NHS OBJECTIVE 3 Increase the urban forest cover within the developed portion of the watershed to improve social and environmental well-being.	**3.3.1** Lower-tier municipalities, in collaboration with the Region of Durham and TRCA, to update existing urban forest studies and consolidate them into a comprehensive study that: a. accounts for all public and private lands b. develops targets for public and private lands for inclusion in an urban forest strategy c. develops indicators for the quality and quantity of the urban forest for inclusion in an urban forest strategy
	3.3.2 The Region of Durham and lower-tier municipalities, in collaboration with TRCA, to develop a comprehensive urban forest strategy that: a. enhances tree and soil conservation in accordance with *Preserving and Restoring Healthy Soil: Best Practices for Urban Construction* at any new development, or redevelopment, (e.g. Carruthers Creek Business Area), and on regional property (e.g. along Taunton Road) as depicted on **Map 8** b. focuses urban forest tree planting programs in the Town of Ajax as depicted on **Map 8** c. encourages an urban forest with diverse and native (or non-invasive) tree species and class sizes d. ensures consistent policies and bylaws for tree conservation on public and private lands e. explores opportunities to increase the capacity of the Region of Durham to implement an Urban Forest Strategy consistent with this management recommendation f. encourages participation in knowledge-sharing and collaboration through the Regional Public Works Commissioners of Ontario's Urban Forestry Sub-working Group and Ontario's Municipal Arborist and Urban Foresters Association g. includes urban forest targets for existing developed areas and any future development as part of the strategy

5.4 CARRUTHERS CREEK HEADWATERS MANAGEMENT

There are several management recommendations that refer to potential future studies, subwatershed planning, or potential development in the headwaters of Carruthers Creek. The headwaters that could potentially have development in the future are the lands outside of the Greenbelt north of Highway 7. At the moment, these lands are not designated as part of the settlement area of the City of Pickering in their Official Plan, or the Region of Durham's urban area boundary. For any future development to occur, a Settlement Area Boundary Expansion, in compliance with the Growth Plan, would need to occur. The following management recommendations speak to what would be required based on provincial policy and the recommendations in this watershed plan. These management recommendations were already discussed under their relevant goal, but are repeated here as they are specific to the headwaters of Carruthers Creek. Should a decision be made to proceed with a Settlement Area Boundary Expansion, the full suite of management recommendations in **Subsections 5.1 – 5.3** would apply to that area.

TABLE 9:
Headwaters Specific Management Recommendations

	Relevant Management Recommendations	Rationale and Provincial Policy Basis
1.1.3	If it is determined that a Settlement Area Boundary Expansion is required in the headwaters of Carruthers Creek, the Region of Durham, in collaboration with the lower-tier municipalities and TRCA, will identify, based on consensus between the identified parties, the subsequent planning processes and further studies and assessments, that would be required to implement any such expansion. These requirements should be reflected as policies within the Regional Official Plan and include the requirement for the preparation of a secondary plan and a subwatershed plan (or equivalent), which would be supported by, at a minimum, the following studies, assessments, and further considerations: a. a hydraulic assessment b. how natural hazards will be assessed and mitigated (i.e. the risk of flooding and erosion will not increase) c. how the Natural Heritage System and Water Resource System will be protected, enhanced, and restored d. how water quality and quantity will be protected e. how flood mitigation solutions will be funded, including identification of the responsible parties for providing the funding. This includes the cost of any necessary studies, engineering design, and actual construction/maintenance of flood mitigation works	Appropriate scoping of any subwatershed studies for potential future Settlement Area Boundary Expansions will allow those studies to build upon work completed through this watershed planning process in a collaborative fashion. Growth Plan policies 2.2.8.3 (d) / (e) and 4.2.1.3 (c).

	Relevant Management Recommendations	Rationale and Provincial Policy Basis
1.1.4	During planning for transportation infrastructure improvement projects, or new projects, the Region of Durham and lower-tier municipalities to implement best management practices for design, expansions and widenings in accordance with TRCA's *Crossing Guideline for Valley and Stream Corridors*, and ensure consistent policies and standards are in place to facilitate hydraulic function (e.g. prevent flooding) and ecological connectivity (e.g. wildlife passage). See **Map 3** for priority crossings.	This management recommendation is intended to ensure hydrological and ecological connectivity by improving crossings when new transportation infrastructure is built, or existing infrastructure is upgraded. This recommendation will help protect the integrity of the WRS and NHS, consistent with Growth Plan policies 4.2.1 and 4.2.2.
1.2.4	For new developments, lower-tier municipalities to require hydrologic analysis and erosion threshold assessments downstream of potential stormwater management facilities that need to demonstrate no negative, or adverse, downstream impacts, prior to municipal approvals.	This management recommendation is intended to identify potential changes to the functions of the WRS arising from new development. It is consistent with Growth Plan policies related to stormwater management (3.2.7).
1.3.3	Implement appropriate flood mitigation measures for the Flood Vulnerable Cluster in the Town of Ajax, which could involve: a. reopening, or initiating, a new environmental assessment to provide a more comprehensive list of alternatives to offset impacts associated with potential development in the headwaters b. the application of regional control in the headwaters of Carruthers Creek, if developed and required by updated flood modelling	This management recommendation is in reference to existing flooding issues in the lower part of the Carruthers Creek watershed in the Town of Ajax. The exact nature of the flood mitigation measure will depend on whether development proceeds in the headwaters of Carruthers Creek.

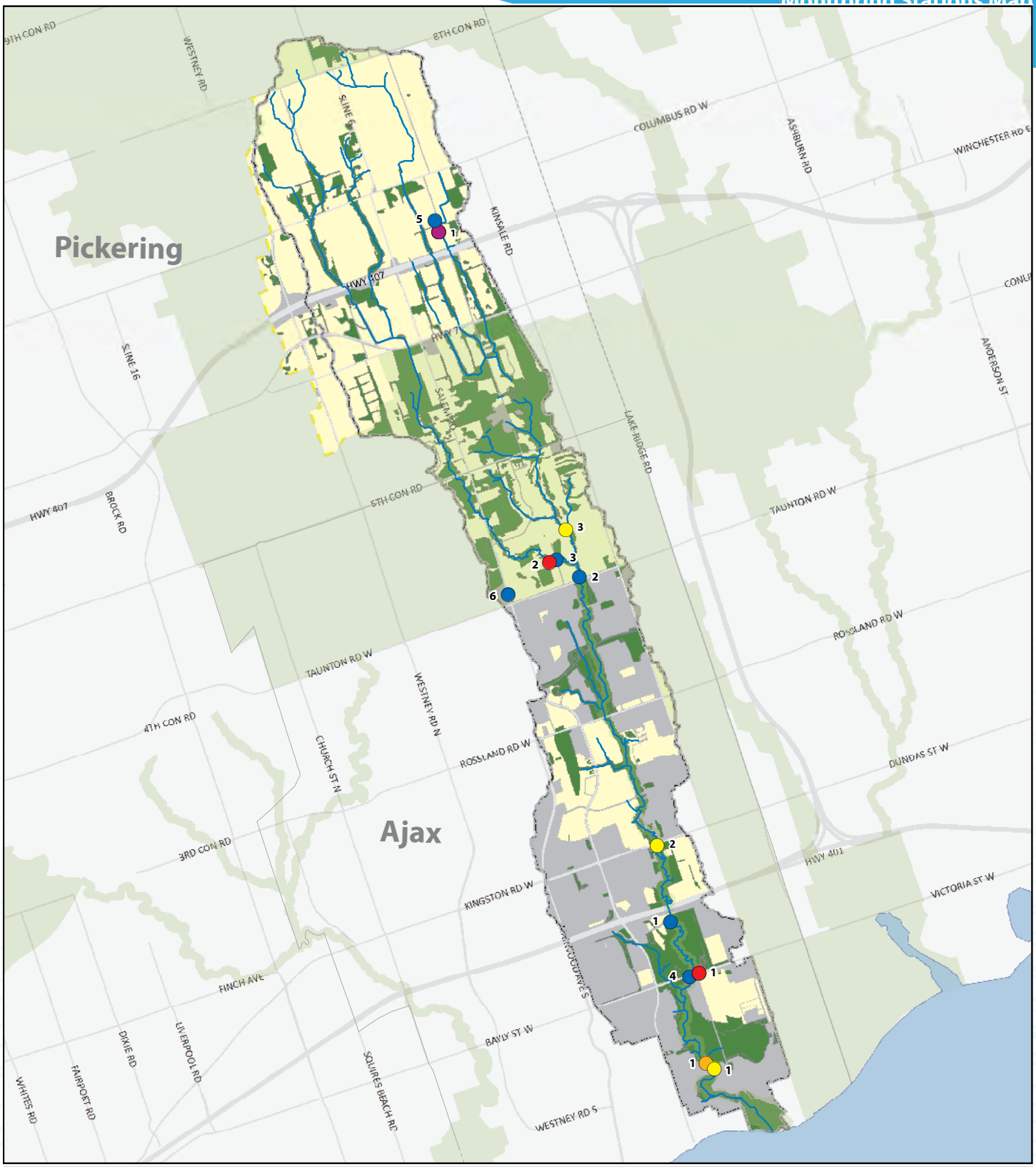
	Relevant Management Recommendations	Rationale and Provincial Policy Basis
2.1.4	If it is determined that a Settlement Area Boundary Expansion is required in the headwaters of Carruthers Creek, the City of Pickering, in collaboration with the Region of Durham, Town of Ajax, and TRCA, prior to approvals of a secondary plan, to demonstrate through a subwatershed plan (or equivalent) that: a. key hydrologic features will be protected and hydrologic functions maintained b. where avoidance of key hydrologic areas is not possible, appropriate mitigation measures are to be implemented to maintain downstream hydrologic functions c. there will be no negative or adverse downstream effects, such as increased flooding, erosion, or deteriorated water quality through a hydraulic analysis (to quantify and map depth and extent of impacts) and other relevant modelling	Similarly, to management recommendation 1.1.3, this management recommendation identifies what is necessary to protect the integrity of the WRS and NHS. Growth Plan policies 2.2.8.3 (d) / (e), 4.2.1.3 (c), 4.2.2.3, and 4.2.2.6.
3.1.7	Wetland water balance studies that demonstrate how the hydrological function of the wetland is to be protected will be undertaken by the landowner for any potential future growth in the areas identified in **Map 7**, or other areas identified during subwatershed planning, prior to any planning approvals.	Wetlands are vital features to both the WRS and NHS. Any development in proximity to wetland features should demonstrate the protection of hydrologic functions. Growth Plan policies 4.2.1.2, 4.2.1.4, and 4.2.2.3.

6. Monitoring and Evaluation

Monitoring is vital to the successful implementation of this watershed plan. Monitoring will help evaluate trends in watershed conditions and track the implementation of plan objectives. Monitoring will help determine what is working to maintain or improve conditions and what, if necessary, needs to change should conditions deteriorate.

The Carruthers Creek monitoring program is designed to evaluate both watershed health and indicators associated with objectives of this watershed plan. The monitoring stations map (**Figure 7**) identifies monitoring stations by category based on what they monitor. **Table 10** explains the Carruthers Creek monitoring program in detail. The stations identified in the monitoring stations map are cross referenced in the stations column in **Table 10** (e.g. the first station listed in the table is an aquatic station, which is the yellow number 1 on the map).

Additional monitoring stations are likely necessary to adequately track watershed health trends and the identified indicators over time. TRCA, in collaboration with its municipal partners, will identify opportunities to expand watershed monitoring with appropriate resourcing. It will be particularly important to ensure monitoring stations are collecting data in all parts of the watershed. Currently, monitoring stations are limited in the northern part of the watershed. If development occurs in the headwaters of Carruthers Creek, it may be necessary to add additional monitoring stations.



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Carruthers Creek Watershed Plan: Monitoring Stations

0 0.5 1 2 3 KM

- Aquatic
- Groundwater
- Terrestrial
- Water Quality
- Water Quantity

- Municipal Boundary
- Watercourse
- Greenbelt Boundary

Land Use

- Natural
- Rural
- Urban

- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study

TABLE 10:
Carruthers Creek Monitoring Program

Monitoring Category	Stations	Monitoring Frequency	What is monitored?	Why do we monitor it?
WATER RESOURCE SYSTEM (aquatic ecosystems)	**ID#: CC001WM** (Yellow #1 on map) **ID#: CC002WM** (Yellow #2 on map) **ID#: CC003WM** (Yellow #3 on map)	Every three years	Fish community, aquatic habitat, and benthic invertebrate community	**Indicator:** Maintain, or increase, aquatic health rankings. Applicable to WRS Objective 2. Monitoring these aquatic habitat characteristics allows for the assessments of the overall health of the aquatic ecosystem.
NATURAL HERITAGE SYSTEM (terrestrial ecosystems)	**ID#: FV-18 & FV-18_1** (Orange #1 on map)	Annually	Vegetation and forest birds	**Indicator:** Maintain, or increase, the number and area of species and vegetation communities of concern. Applicable to NHS Objective 2. Monitoring these terrestrial habitat characteristics helps to understand how the system is functioning and if there are changes to species composition over time. **Note:** This indicator requires inventory data from across the watershed to be properly assessed. The identified monitoring stations only collect data at that particular location and therefore do not assess trends across the watershed. An inventory would need to be conducted within the next ten years to update information regarding current conditions.

Monitoring Category	Stations	Monitoring Frequency	What is monitored?	Why do we monitor it?
SURFACE WATER QUALITY	**ID#: 107002** (Red #1 on map)	Monthly samples	Water chemistry (e.g. nutrients), metals, bacteria, and temperature	Applicable to overall watershed health and trends to know whether water quality conditions are improving or not. Monitoring water quality helps to understand the impacts of land uses on local water quality that ultimately flows into Lake Ontario.
	ID#: CC005 (Red #2 on map)			
SURFACE WATER QUANTITY	**ID#: HY013** (Blue #1 on map)	Continuous water level data collected, reported in 15-minute intervals	Stream level, discharge, and temperature	Applicable to overall watershed health and trends to know whether hydrology conditions are improving or not. Monitoring stream level, discharge and temperature helps to understand the interconnections between groundwater and surface water. This information can be used to guide the management and protection of baseflow levels to protect aquatic life and ensure sustainable human use of surface water.
	ID#: HY090 (Blue #2 on map)			
	ID#: HY089 (Blue #3 on map)			
	ID#: WQ002 (Blue #4 on map)	Continuous water level and certain water quality data collected, reported in 15-minute intervals Monthly grab samples for full suite of water quality parameters Also takes event-based (i.e. heavy rainfall) water quality samples	Stream level, discharge, and temperature Note: also measures water quality as part of Lake Ontario tributary monitoring	Applicable to overall watershed health and trends to know whether hydrology and water quality conditions are improving or not. The primary purpose of this station is to assess nutrient loadings to Lake Ontario.

Monitoring Category	Stations	Monitoring Frequency	What is monitored?	Why do we monitor it?
	ID#: HY121 (Blue #5 on map)	Continuous real-time (reporting every 5 minutes)	Rainfall and snowfall amount and temperature	Applicable to overall watershed health and trends to know whether hydrology conditions are improving or not. Precipitation monitoring information assists with flood forecasting and warning, event-based sampling, and watershed planning.
	ID#: HY122 (Blue #6 on map)			
GROUNDWATER QUANTITY	**ID#: HY121** (Purple #1 on map)	Hourly groundwater level and temperature, and monthly manual groundwater level measurements	Water level	Applicable to overall watershed health and trends to know whether hydrogeology conditions are improving or not. Groundwater and surface water interactions are essential for a functioning WRS. Understanding groundwater conditions is vital to understanding the nature of these interactions.

Note:
The following indicators are not evaluated through a particular monitoring station in Carruthers Creek, but will be periodically assessed through GIS analyses:

- Reduce number of flood vulnerable structures and flood vulnerable roads (Land Use Objective 2)
- Increase total natural cover in the watershed (NHS Objective 1)
- Increase total tree canopy in the watershed (NHS Objective 3)

The remaining indicators are qualitative (e.g. ensuring policies are in place) and will be reported on by TRCA in collaboration with its municipal partners.

Reporting

As part of the Carruthers Creek monitoring program, TRCA, in collaboration with its municipal partners, will conduct annual reporting to communicate on the health of the watershed and plan implementation progress.

Annual reporting will help to track watershed health trends and the indicators identified as part of this watershed plan.

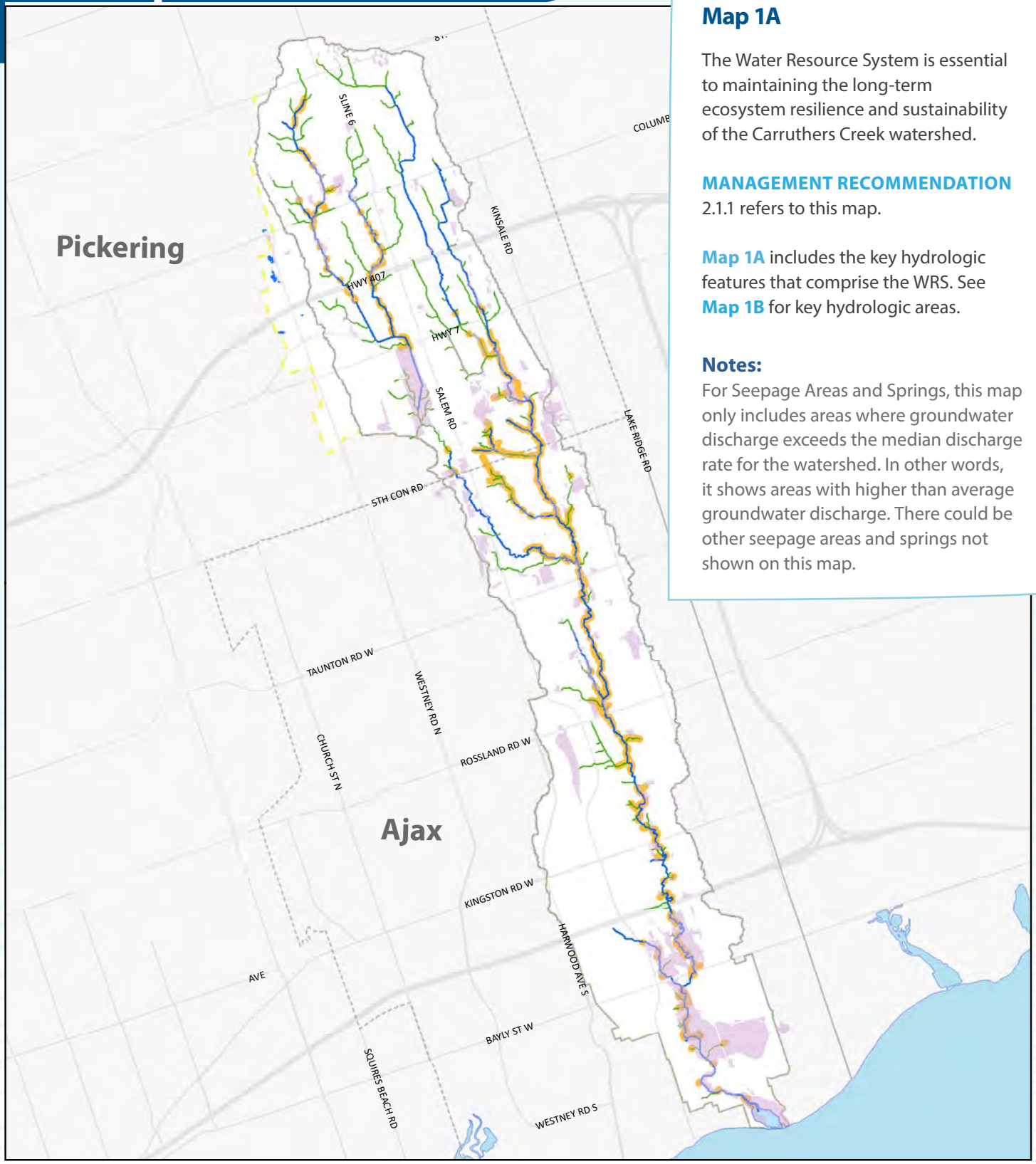
Some components of this watershed plan may not be reported on annually (e.g. aquatic community and terrestrial species). This is due to different monitoring frequencies for certain components (e.g. aquatic species are surveyed every three years).

Adaptive Management

Adaptive management is a systematic process (see **Figure 8**) for continually improving practices by learning and applying updated knowledge to improve project outcomes. In the context of this watershed plan, adaptive management, in combination with the monitoring program, will allow modifications and refinements to management recommendations, and/or the monitoring program throughout the life cycle of this watershed plan. For example, if water quality continues to deteriorate, certain land use management recommendations may not be resulting in the desired outcome, requiring adjustment.

FIGURE 8:
Adaptive Management Cycle

7. Maps



Map 1A

The Water Resource System is essential to maintaining the long-term ecosystem resilience and sustainability of the Carruthers Creek watershed.

MANAGEMENT RECOMMENDATION
2.1.1 refers to this map.

Map 1A includes the key hydrologic features that comprise the WRS. See **Map 1B** for key hydrologic areas.

Notes:
For Seepage Areas and Springs, this map only includes areas where groundwater discharge exceeds the median discharge rate for the watershed. In other words, it shows areas with higher than average groundwater discharge. There could be other seepage areas and springs not shown on this map.

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Carruthers Creek Watershed Plan: Water Resource System - Map A

0 0.5 1 2 3 KM

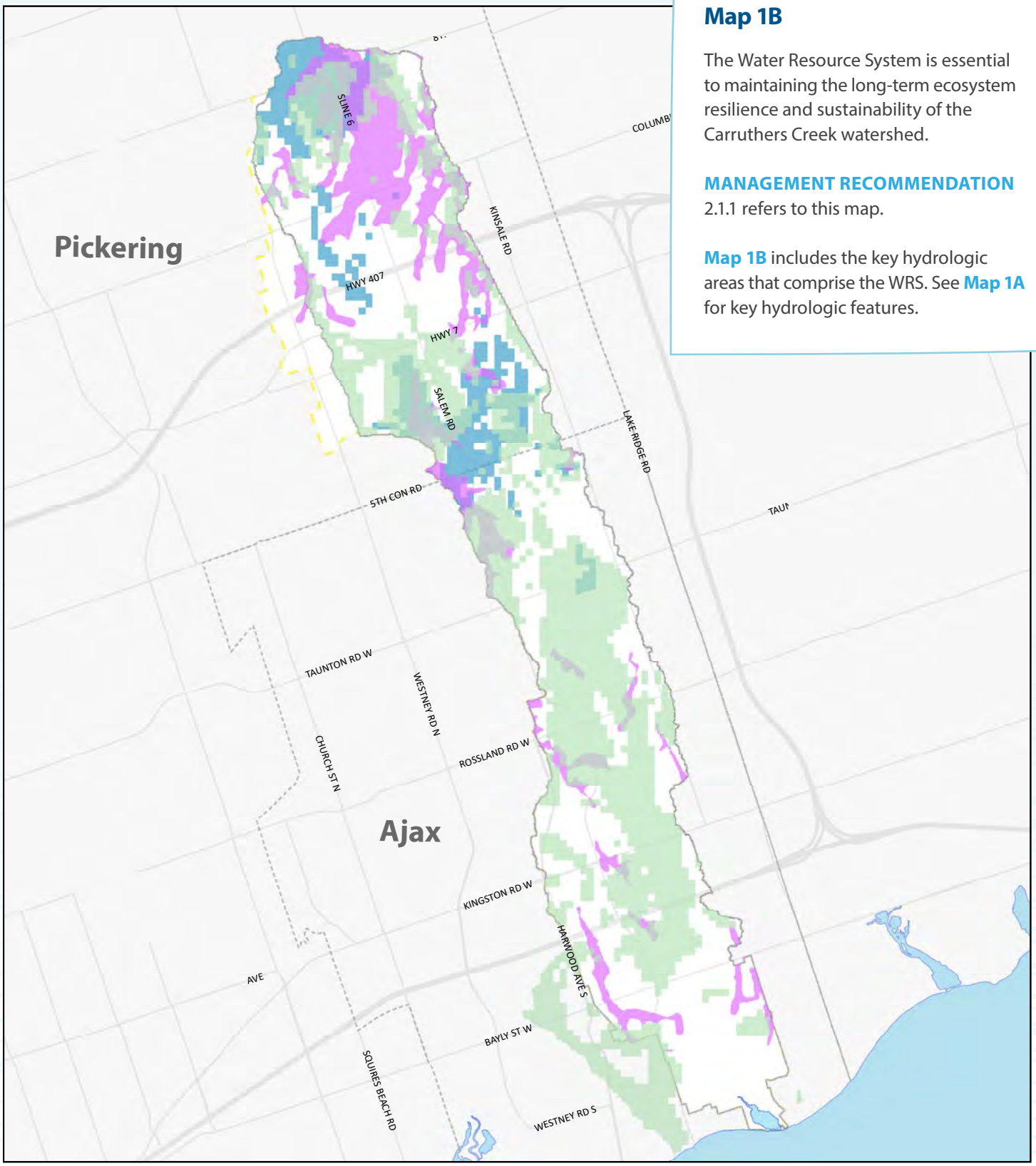
Key Hydrologic Features
- Inland Lakes
- Intermittent Streams
- Permanent Streams
- Seepage Areas and Springs
- Wetlands
- Municipal Boundary
- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study

Map 1B

The Water Resource System is essential to maintaining the long-term ecosystem resilience and sustainability of the Carruthers Creek watershed.

MANAGEMENT RECOMMENDATION
2.1.1 refers to this map.

Map 1B includes the key hydrologic areas that comprise the WRS. See **Map 1A** for key hydrologic features.



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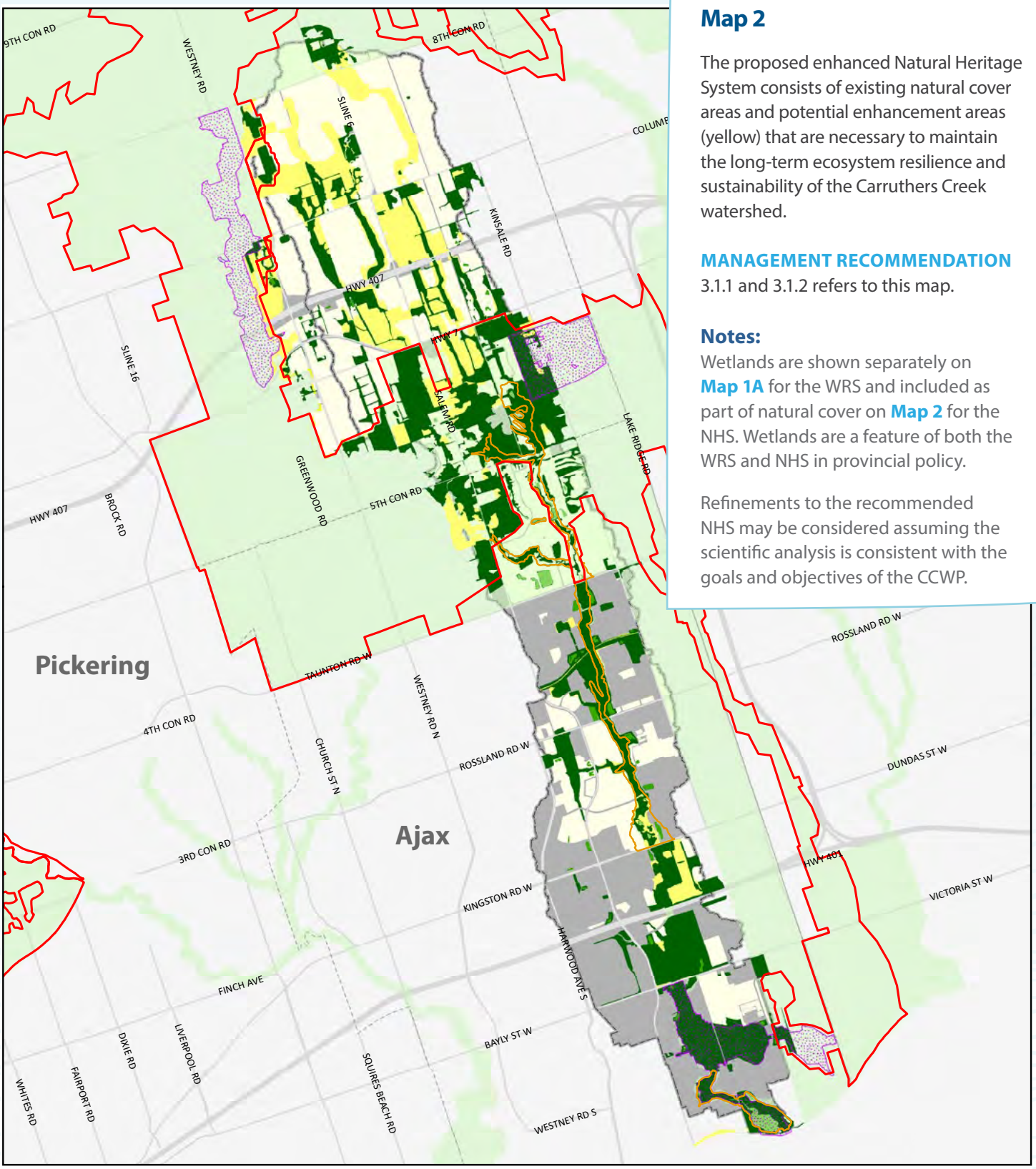
Carruthers Creek Watershed Plan: Water Resource System - Map B

0 0.5 1 2 3 KM

Key Hydrologic Areas
- Highly Vulnerable Aquifers
- Significant Groundwater Recharge Areas
- Ecologically Significant Groundwater Recharge Areas

- Municipal Boundary
- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study



Map 2

The proposed enhanced Natural Heritage System consists of existing natural cover areas and potential enhancement areas (yellow) that are necessary to maintain the long-term ecosystem resilience and sustainability of the Carruthers Creek watershed.

MANAGEMENT RECOMMENDATION
3.1.1 and 3.1.2 refers to this map.

Notes:
Wetlands are shown separately on **Map 1A** for the WRS and included as part of natural cover on **Map 2** for the NHS. Wetlands are a feature of both the WRS and NHS in provincial policy.

Refinements to the recommended NHS may be considered assuming the scientific analysis is consistent with the goals and objectives of the CCWP.

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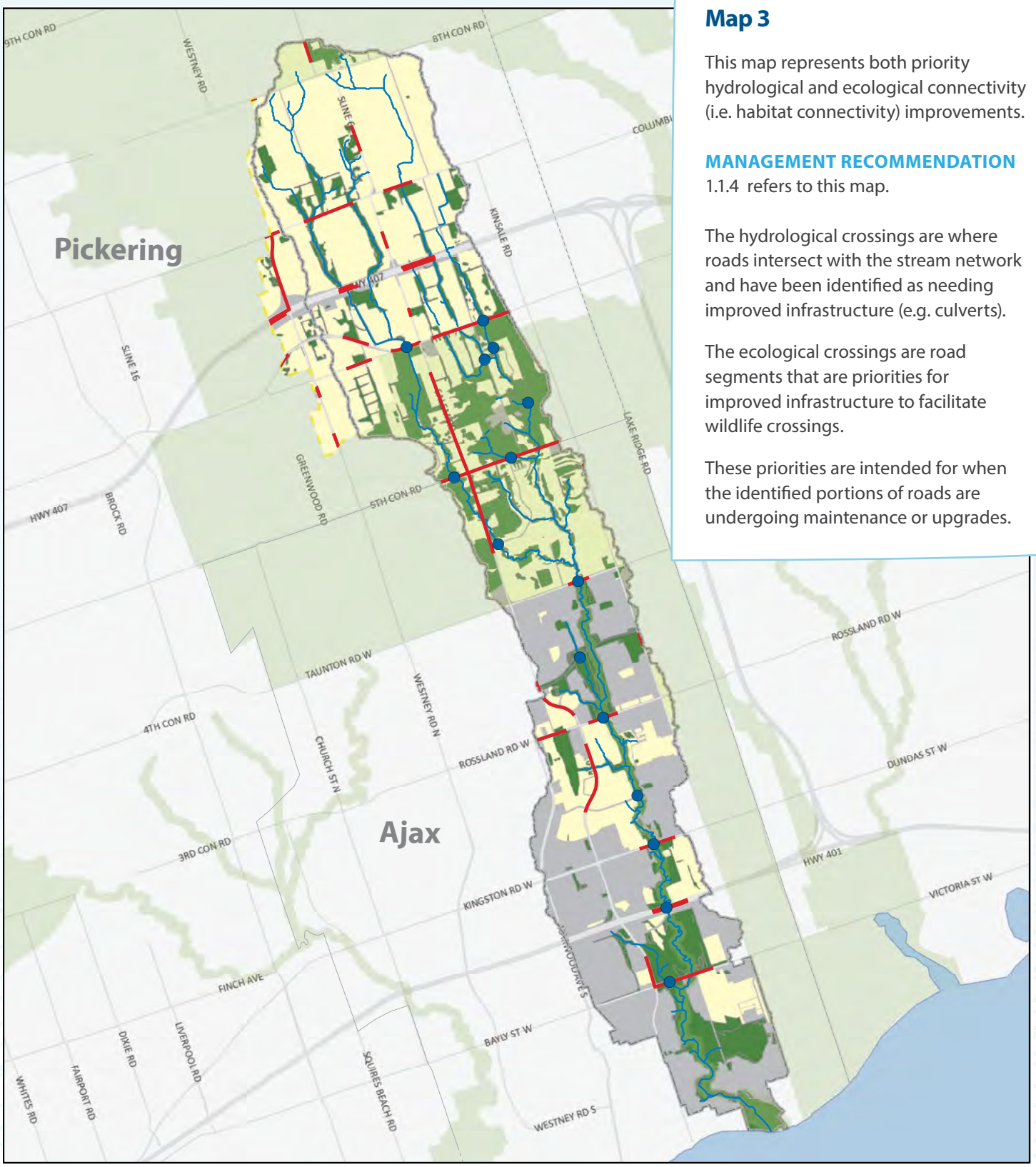
Carruthers Creek Watershed Plan: Enhanced Natural Heritage System

0 0.5 1 2 3 KM

- Valleyland
- ANSI
- Natural Cover (Existing)
- Natural Cover (Potential)
- Provincial NHS
- Municipal Boundary
- Greenbelt Boundary
- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study Area

Land Use
- Natural
- Rural
- Urban



Map 3

This map represents both priority hydrological and ecological connectivity (i.e. habitat connectivity) improvements.

MANAGEMENT RECOMMENDATION
1.1.4 refers to this map.

The hydrological crossings are where roads intersect with the stream network and have been identified as needing improved infrastructure (e.g. culverts).

The ecological crossings are road segments that are priorities for improved infrastructure to facilitate wildlife crossings.

These priorities are intended for when the identified portions of roads are undergoing maintenance or upgrades.

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Carruthers Creek Watershed Plan: Priority Crossing Improvements

0 0.5 1 2 3 KM

- Priority Hydrologic Crossings Improvement Areas
- Priority Ecological Connectivity Areas
- Watercourse
- Greenbelt Boundary
- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study Area

Land Use
- Natural
- Rural
- Urban
- Municipal Boundary

Note: Priorities shown in this map are for regional roads only

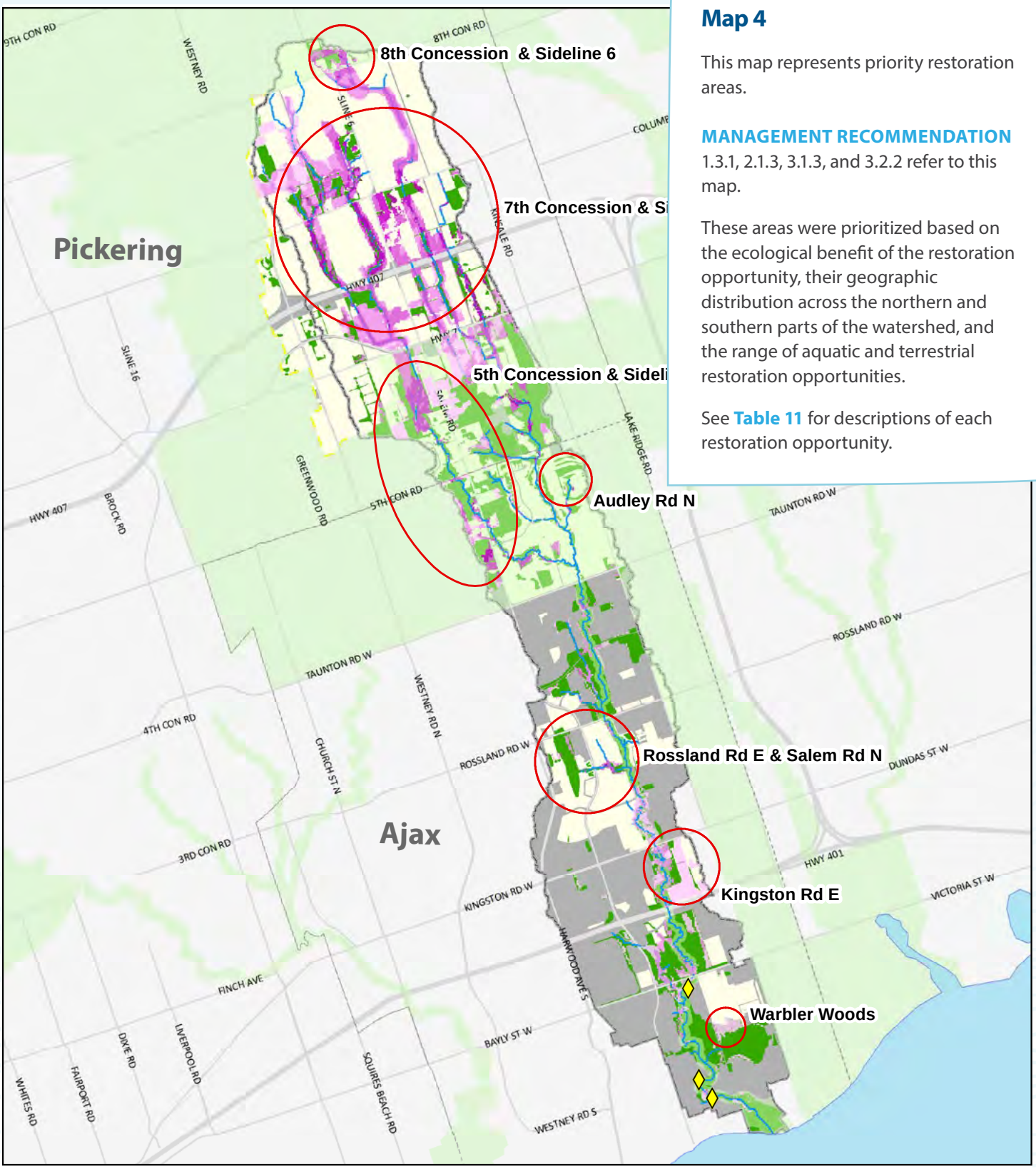
Map 4

This map represents priority restoration areas.

MANAGEMENT RECOMMENDATION
1.3.1, 2.1.3, 3.1.3, and 3.2.2 refer to this map.

These areas were prioritized based on the ecological benefit of the restoration opportunity, their geographic distribution across the northern and southern parts of the watershed, and the range of aquatic and terrestrial restoration opportunities.

See **Table 11** for descriptions of each restoration opportunity.



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Carruthers Creek Watershed Plan: Restoration Priorities

0 0.5 1 2 3 KM

- Erosion Priority Restoration Sites
- Restoration Opportunity Priority Areas
- Municipal Boundary
- Watercourse

Land Use
- Natural
- Rural
- Urban

- Greenbelt Boundary
- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study Area

Ecological Benefit of Restoration Opportunity
- Highest Benefit

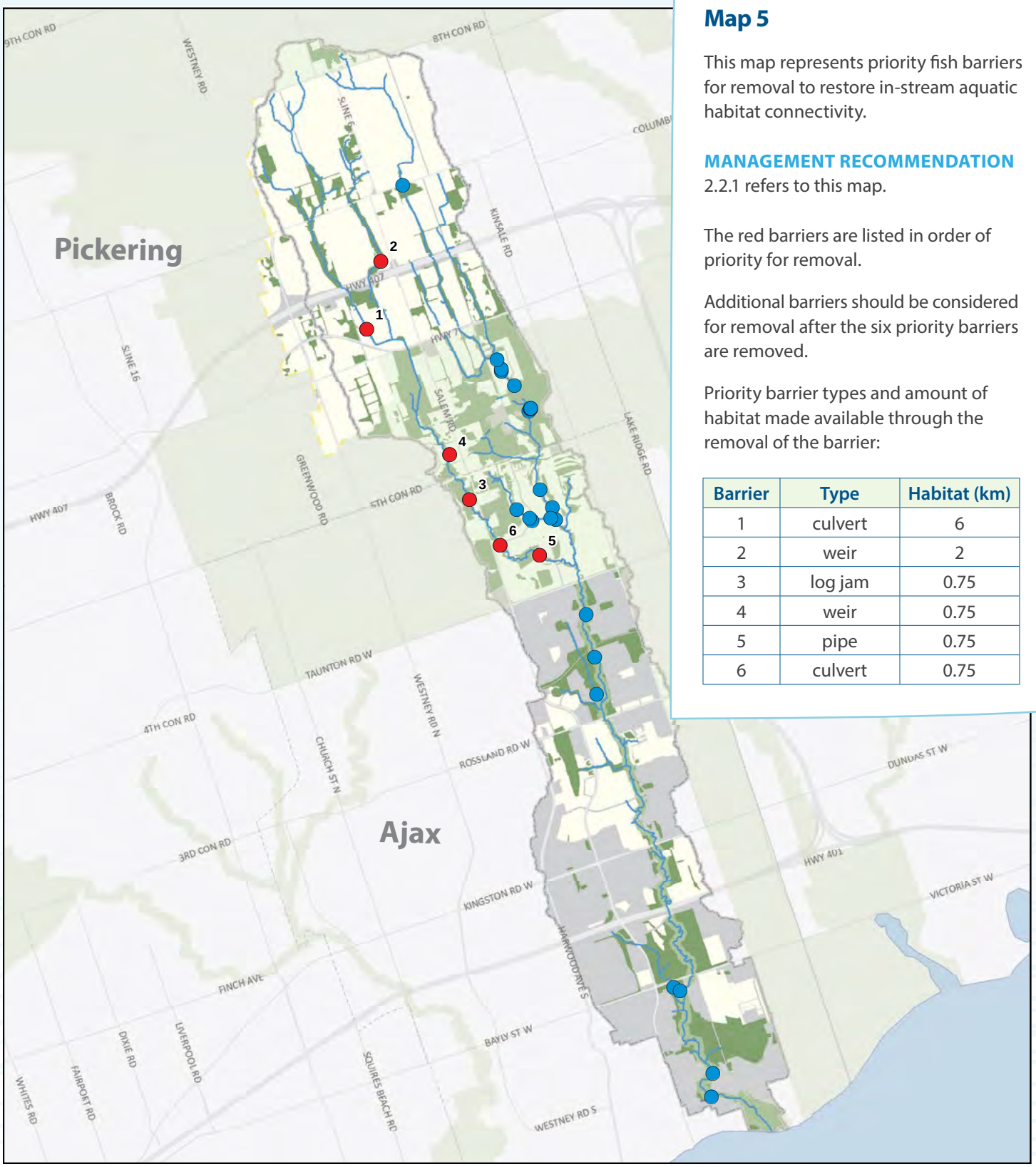
Restoration Opportunity Planning for Carruthers Creek

Restoration opportunity planning is TRCA's current process for identifying and recording site-level information for terrestrial and aquatic restoration opportunities (e.g. wetland, riparian, forest, meadow, and stream restoration). TRCA's Integrated Restoration Prioritization (IRP) tool is used to help select priority restoration opportunities where ecological impairments exist and, if restored, could contribute most to the terrestrial natural heritage and water resource systems.

Restoration opportunities in the Carruthers Creek watershed were originally identified using desktop assessment techniques as per the restoration opportunity planning methodology. For the CCWP, a more detailed prioritization method using additional data identified the most important areas to consider for restoration. This involved combining the IRP scores with the criteria listed in management recommendations 2.1.3 for aquatic and 3.1.2 for terrestrial. TRCA then overlaid these scores with the restoration opportunity planning information to identify the highest scoring areas, which are circled in **Map 4** (Note: the Audley Road N opportunity was selected for meadow restoration potential in support of management recommendation 3.2.2).

TABLE 11:
Restoration Opportunity Summaries

Location	Restoration Opportunity
8th Concession and Sideline 6	• Forest, wetland, stream, and riparian restoration opportunities have been identified in areas of residential and agricultural land uses. • Forest restoration will help connect and expand existing forest to the north. • Large-scale wetland and riparian restoration would restore headwater drainage feature functions and benefit downstream habitat. Existing land use patterns have altered streams, wetlands, and riparian areas. • With agriculture as the predominant land-use, the focus of restoration should be to work with property owners to restore and maintain marginal lands that do not negatively impact agricultural use but promote best management practices and contribute to the potential enhanced natural heritage system.
7th Concession and Sideline 6	• Forest, wetland, stream, and riparian restoration opportunities were identified in this largely agricultural area. • Highest priority areas include riparian corridors and around existing forest patches. • Portions in the north-east and along hydro corridors of this area provide meadow restoration opportunities. • Areas of wetland restoration will increase habitat diversity, contribute to the reduction of run-off, and increase water infiltration and storage.
5th Concession and Sideline 6	• Forest, wetland, riparian, and meadow restoration opportunities were identified in this priority area. • Restore large area of wetland and riparian habitat in the northern portion of this area. • Meadow habitat can be created along the hydro corridor running east to west in this area. • Existing forests can be expanded along the proposed enhanced NHS.
Audley Road North	• Restore wetland and meadow habitat to the east of the stream, in collaboration with golf course. • Meadow restoration potential in the hydro corridor to the south of the area to support habitat for sensitive species.
Rossland Road East and Salem Road North	• Restore riparian buffer to the west of the main branch of the creek and create a forest buffer between future development and the NHS. • Work with developer to restore wetlands and riparian corridors and encourage the use of best management practices such as low impact development and buffers as part of any development.
Kingston Road East	• Restore riparian cover along the main channel of Carruthers Creek. • Restore large wetlands to the east of this area and plant riparian and forest habitat around the wetlands. • Restore ponds in flood plain north of Kingston Road East to enhance wetland habitat and connect corridor along the stream network.
Kingston Road East	• Restore wetland habitat north of existing wetland to provide a buffer between this area and potential development.
Warbler Woods	• Restore wetland habitat north of existing wetland to provide a buffer between this area and potential development.



Map 5

This map represents priority fish barriers for removal to restore in-stream aquatic habitat connectivity.

MANAGEMENT RECOMMENDATION

2.2.1 refers to this map.

The red barriers are listed in order of priority for removal.

Additional barriers should be considered for removal after the six priority barriers are removed.

Priority barrier types and amount of habitat made available through the removal of the barrier:

Barrier	Type	Habitat (km)
1	culvert	6
2	weir	2
3	log jam	0.75
4	weir	0.75
5	pipe	0.75
6	culvert	0.75

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N

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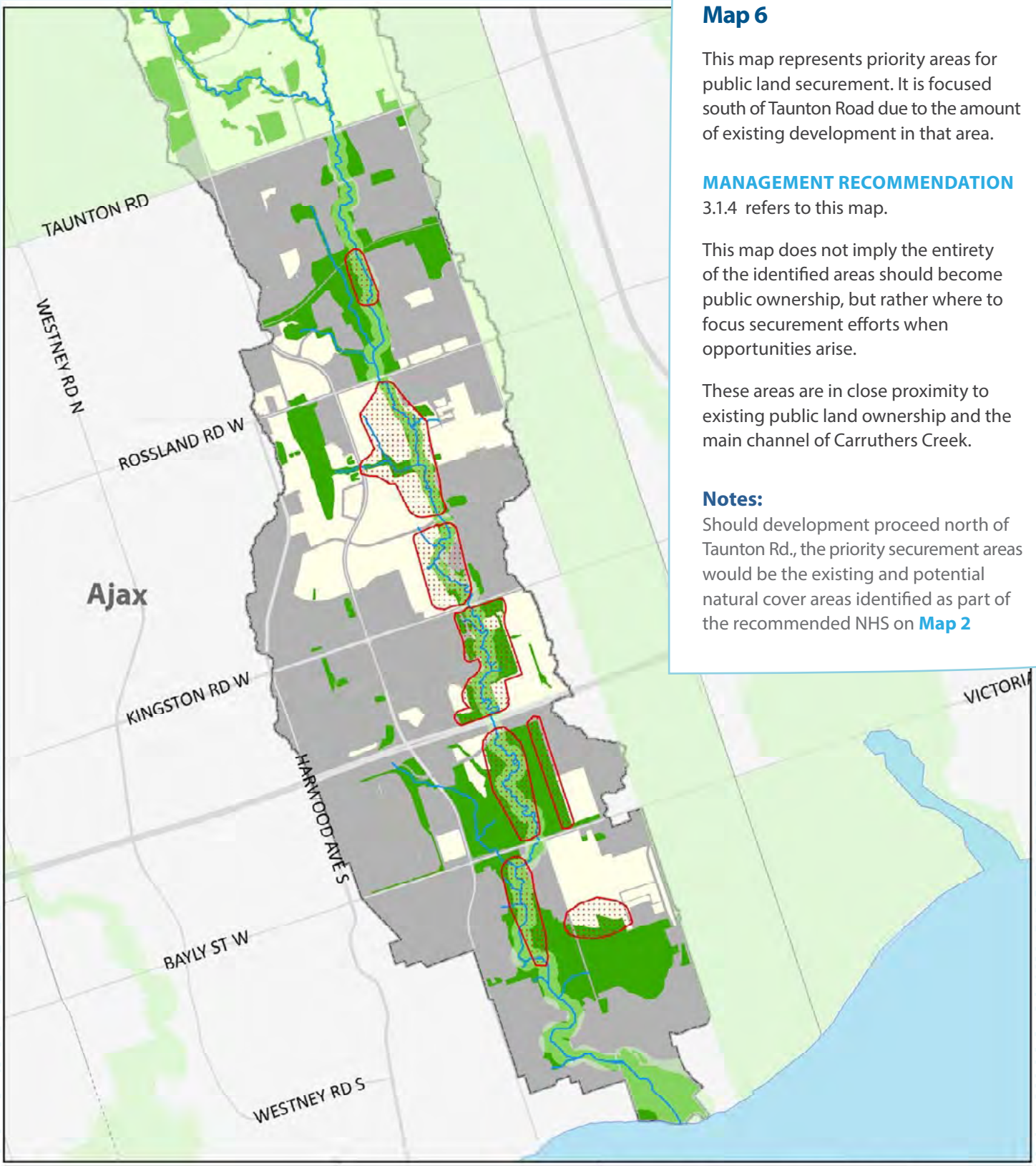
Carruthers Creek Watershed Plan: Fish Barriers

0 0.5 1 2 3 KM

- Priority Barriers
- Other Barriers
- Municipal Boundary
- Watercourse
- Greenbelt Boundary
- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study Area

Land Use

- Natural
- Rural
- Urban



Map 6

This map represents priority areas for public land securement. It is focused south of Taunton Road due to the amount of existing development in that area.

MANAGEMENT RECOMMENDATION
3.1.4 refers to this map.

This map does not imply the entirety of the identified areas should become public ownership, but rather where to focus securement efforts when opportunities arise.

These areas are in close proximity to existing public land ownership and the main channel of Carruthers Creek.

Notes:
Should development proceed north of Taunton Rd., the priority securement areas would be the existing and potential natural cover areas identified as part of the recommended NHS on **Map 2**

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Carruthers Creek Watershed Plan: Priority Securement Areas

0 0.4 0.8 1.6 KM

- Priority Securement Areas
- Inland Lakes
- Watercourse
- Municipal Boundary
- Greenbelt Boundary
- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study Area

Land Use
- Natural
- Rural
- Urban

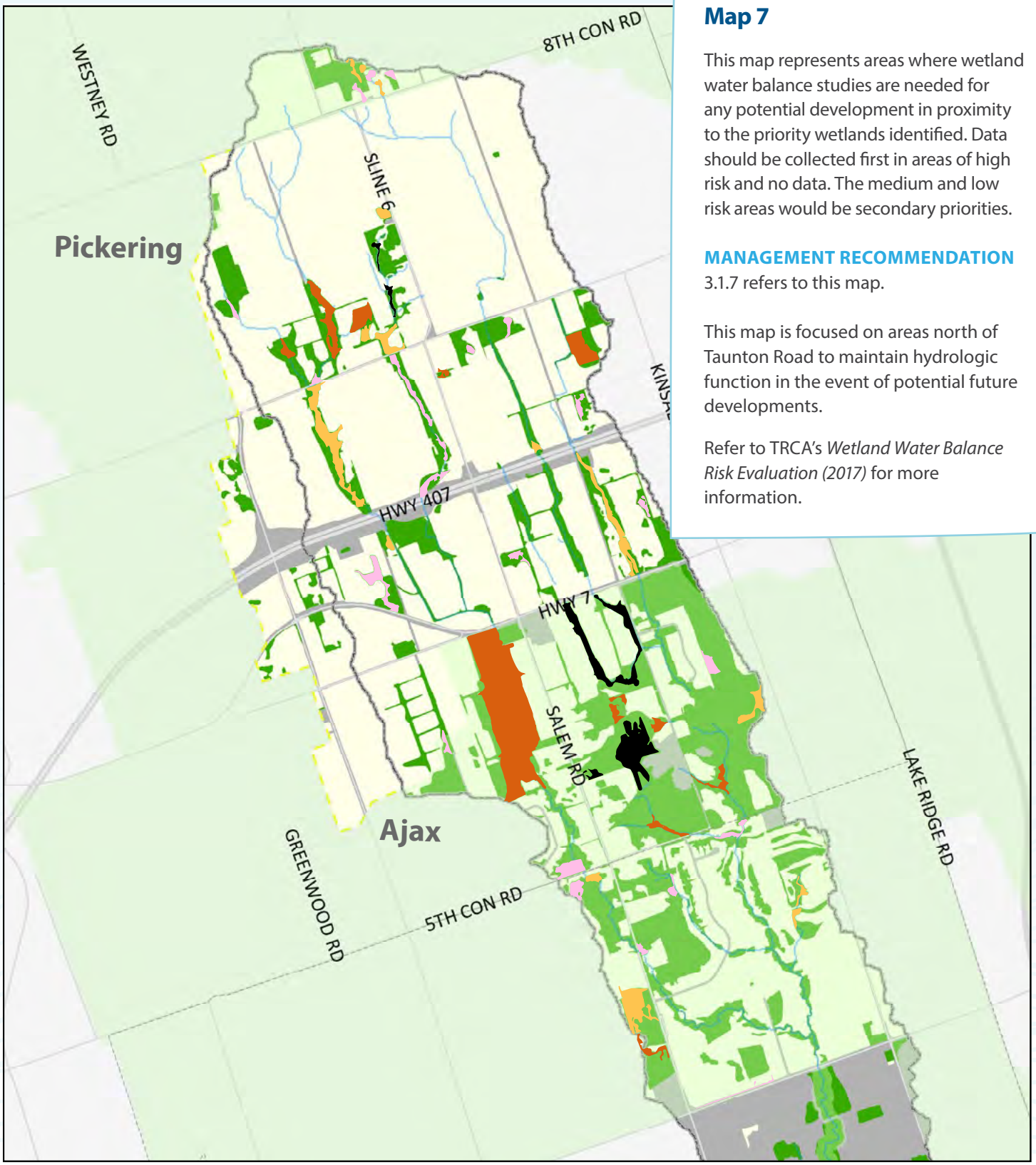
Map 7

This map represents areas where wetland water balance studies are needed for any potential development in proximity to the priority wetlands identified. Data should be collected first in areas of high risk and no data. The medium and low risk areas would be secondary priorities.

MANAGEMENT RECOMMENDATION
3.1.7 refers to this map.

This map is focused on areas north of Taunton Road to maintain hydrologic function in the event of potential future developments.

Refer to TRCA's *Wetland Water Balance Risk Evaluation (2017)* for more information.



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Carruthers Creek Watershed Plan: Wetland Water Balance Study Priorities

0 0.5 1 KM

Wetland Priorities*
- No Data
- High
- Medium
- Low
- Municipal Boundary
- Watercourse

- Greenbelt Boundary
- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study Area

Land Use
- Natural
- Rural
- Urban

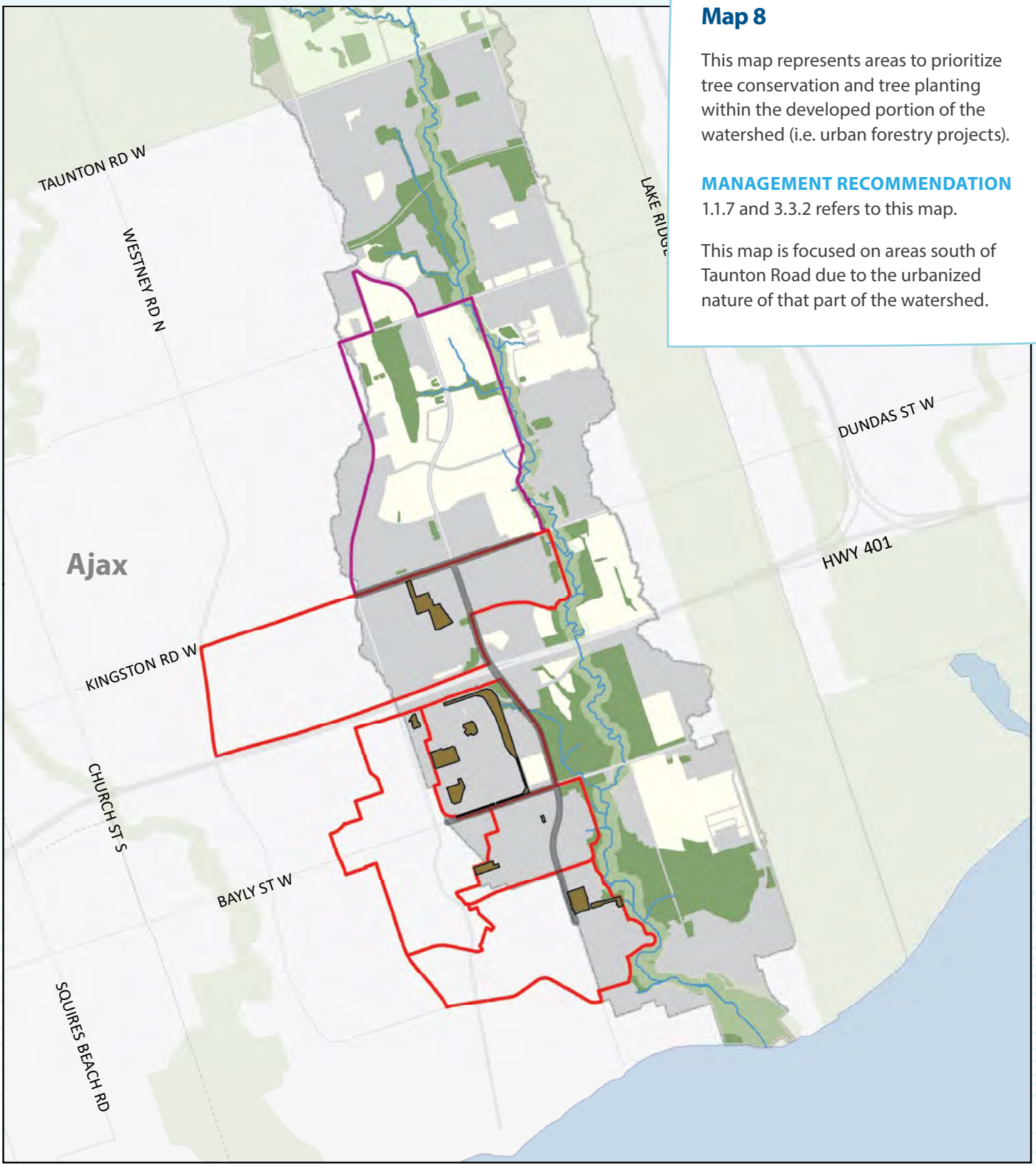
*Classifications based on TRCA Wetland Water Balance Risk Evaluation framework

Map 8

This map represents areas to prioritize tree conservation and tree planting within the developed portion of the watershed (i.e. urban forestry projects).

MANAGEMENT RECOMMENDATION
1.1.7 and 3.3.2 refers to this map.

This map is focused on areas south of Taunton Road due to the urbanized nature of that part of the watershed.



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N

Date: September 2019
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Carruthers Creek Watershed Plan: Priority Urban Forestry Areas

0 0.25 0.5 1 KM

- Road Priorities
- Parks in Priority Neighbourhoods
- Priority Conservation Neighbourhood
- Priority Planting Neighbourhoods
- Municipal Boundary
- Watercourse
- Greenbelt Boundary
- Carruthers Creek Watershed Boundary
- Carruthers Creek Watershed Plan Study Area

Land Use

- Natural
- Rural
- Urban

FIGURE 9:
Subwatershed Quality Due to Changes in Impervious Cover

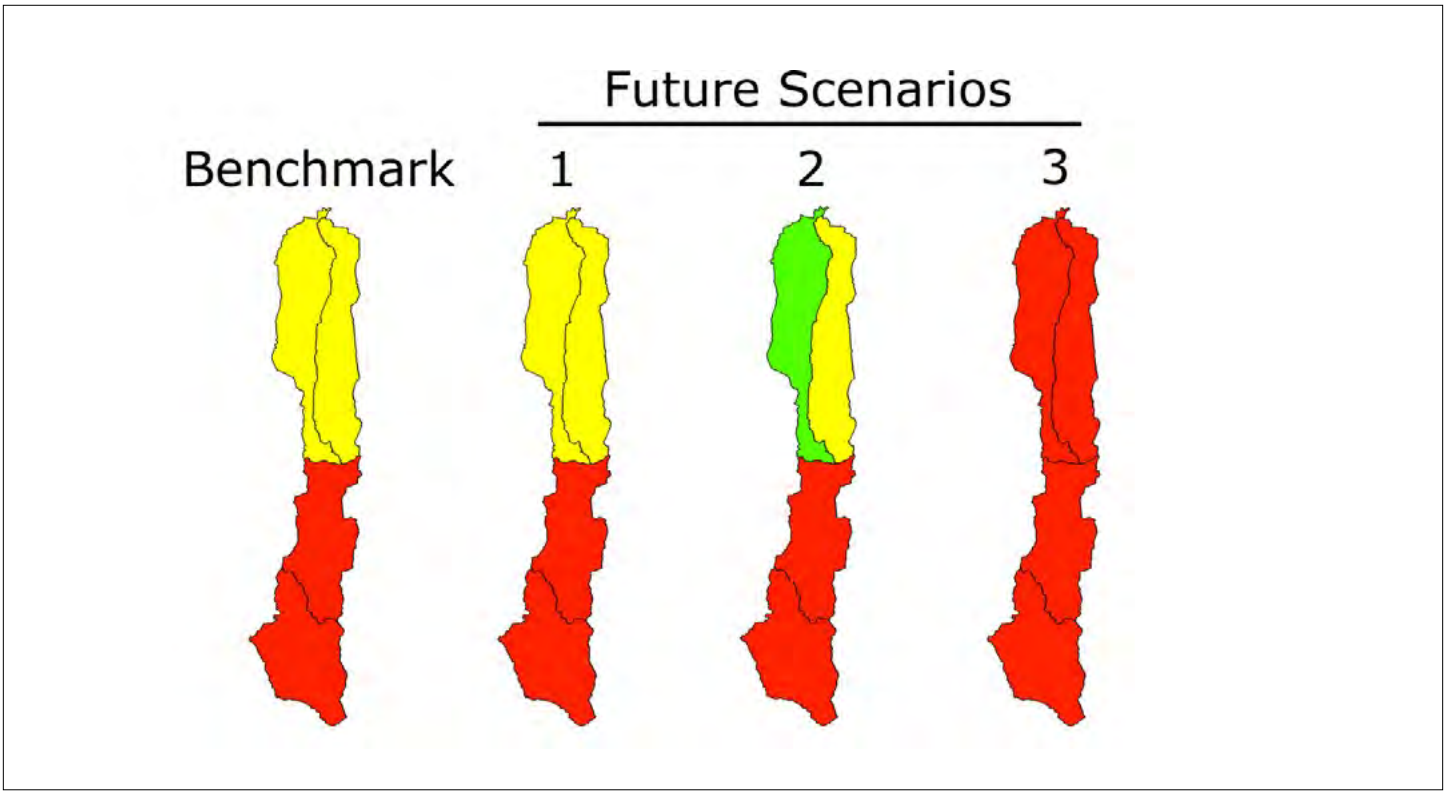

Figure 9

As discussed in **Table 4** for the aquatic health of the WRS, subwatershed quality was assessed based on impervious cover under the existing benchmark conditions and the three future scenarios. The proposed enhanced NHS benefits the aquatic ecosystem in scenario 2 where the north-west subwatershed improves from good – fair to good. The increase in impervious cover associated with scenario 3 results in all four subwatersheds degrading to fair – poor conditions, and will likely result in the loss of Redside Dace, a listed endangered species, within the Carruthers Creek watershed. Implementing the management recommendations identified in this watershed plan, especially limiting impervious cover and undertaking restoration activities will help Redside Dace habitat.

The rating scale for subwatershed quality is based on the amount of impervious cover, with:

- Good (green) = 0% to 10% imperviousness
- Good – fair (yellow) = 10% to 25% imperviousness
- Fair – poor (red) = greater than 25% imperviousness

Notes: the percent imperviousness identified in **Subsection 4.3** is for the entire watershed; while the subwatersheds may have different imperviousness values (e.g. Scenario 1 has 30% imperviousness across the entire watershed, whereas imperviousness by subwatershed is as follows: 10% north-west, 11% north-east, 53% central and 49% south).

See Aquatic Impact Assessment technical report for more information.

8. Glossary

Aquifer

A saturated permeable geologic unit that can transmit significant quantities of groundwater under ordinary hydraulic gradients. They can be classified as confined or unconfined. In southern Ontario, aquifers are typically comprised of sand and/or gravel, or fractured limestone.

Source: TRCA's Living City Policies, 2014

Biodiversity

The variability among organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species and ecosystems.

Source: TRCA's Living City Policies, 2014

Ecological Integrity

Which includes hydrologic integrity, means the condition of ecosystems in which,

a. the structure, composition and function of the ecosystems are unimpaired by stresses from human activity,
b. natural ecological processes are intact and self-sustaining,
c. the ecosystems evolve naturally.

Source: Greenbelt Plan, 2017

Ecosystem Services

The benefits provided by ecosystems that are critical to the environment's life support systems and that contribute to human welfare both directly and indirectly and therefore represent social and economic value.

Source: TRCA's Living City Policies, 2014

Green Infrastructure

Natural and human-made elements that provide ecological and hydrologic functions and processes. Green infrastructure can include components such as natural heritage features and systems, parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces, and green roofs.

Source: Growth Plan, 2020

Headwater Drainage Features

Ill-defined, non-permanently flowing drainage features that may not have defined beds and banks.

Source: TRCA's Living City Policies, 2014

Highly Vulnerable Aquifer

Aquifers, including lands above the aquifers, on which external sources have or are likely to have a significant adverse effect.

Source: Growth Plan, 2020

Hydrologic Function

The functions of the hydrologic cycle that include the occurrence, circulation, distribution and chemical and physical properties of water on the surface of the land, in the soil and underlying rocks, and in the atmosphere, and water's interaction with the environment including its relation to living things.

Source: Growth Plan, 2020

Hydrogeology

A science that describes the movement of groundwater, and its interaction with water that moves on the ground surface in rivers, lakes, streams, and over land. Groundwater seeps into the ground to varying depths and collects in aquifers. Groundwater can remain stored underground for periods ranging from a few days to thousands of years.

Source: TRCA's Living City Policies, 2014

Hydrology

The engineering science that analyzes the different components of the hydrologic cycle, and takes into account that the natural cycle can be altered by human and natural activities.

Source: TRCA's Living City Policies, 2014

Life Science Areas of Natural and Scientific Interest (ANSIs)

An area that has been identified as having life science values related to protection, scientific study, or education; and further identified by the Ministry of Natural Resources and Forestry using evaluation procedures established by that Ministry, as amended from time to time.

Source: Growth Plan, 2020

Low Impact Development

An approach to stormwater management that seeks to manage rain and other precipitation as close as possible to where it falls to mitigate the impacts of increased runoff and stormwater pollution. It typically includes a set of site design strategies and distributed, small-scale structural practices to mimic the natural hydrology to the greatest extent possible through infiltration, evapotranspiration, harvesting, filtration, and detention of stormwater. Low impact development can include, for example: bio-swales, vegetated areas at the edge of paved surfaces, permeable pavement, rain gardens, green roofs, and exfiltration systems. Low impact development often employs vegetation and soil in its design, however, that does not always have to be the case and the specific form may vary considering local conditions and community character.

Source: Growth Plan, 2020

Natural Hazards *(Consisting of Erosion Hazard and Flooding Hazard)*

EROSION HAZARD

Means the loss of land, due to human or natural processes, that poses a threat to life and property.

FLOODING HAZARD

Means the inundation of areas adjacent to a shoreline or a river or stream system not ordinarily covered by water.

Source: PPS, 2020

Natural Heritage System

A system made up of natural heritage features and areas, and linkages intended to provide connectivity (at the regional or site level) and support natural processes which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species, and ecosystems. The system can include key natural heritage features, key hydrologic features, federal and provincial parks and conservation reserves, other natural heritage features and areas, lands that have been restored or have the potential to be restored to a natural state, associated areas that support hydrologic functions, and working landscapes that enable ecological functions to continue.

Source: Growth Plan, 2020

Negative Impacts

Means:

a. in regard to policy 1.6.6.4 and 1.6.6.5 degradation to the quality and quantity of water, sensitive surface water features and sensitive ground water features, and their related hydrologic functions, due to single, multiple or successive development.

b. in regard to policy 2.2, degradation to the quality and quantity of water, sensitive surface water features and sensitive ground water features, and their related hydrologic functions, due to single, multiple or successive development or site alteration activities;
c. in regard to fish habitat, any permanent alteration to, or destruction of fish habitat, except where, in conjunction with the appropriate authorities, it has been authorized under the Fisheries Act; and
d. in regard to other natural heritage features and areas, degradation that threatens the health and integrity of the natural features or ecological functions for which an area is identified due to single, multiple or successive development or site alteration activities.

Source: PPS, 2020

Regional (flood) Control

Stormwater management control of flood flows from the regional storm event (Hurricane Hazel) to mitigate increases in flood risk associated with development (urbanization).

Source: TRCA's Living City Policies, 2014

Riparian

The areas adjacent to water bodies such as streams, wetlands and shorelines. Riparian areas form transitional zones between aquatic and terrestrial ecosystems.

Source: TRCA's Living City Policies, 2014

Seepage Areas and Springs

Sites of emergence of groundwater where the water table is present at the ground surface.

Source: Growth Plan, 2020

Significant Groundwater Recharge Area

An area that has been identified:

a. as a significant groundwater recharge area by any public body for the purposes of implementing the PPS, 2014;
b. as a significant groundwater recharge area in the assessment report required under the Clean Water Act, 2006; or
c. as an ecologically significant groundwater recharge area delineated in a subwatershed plan or equivalent in accordance with provincial guidelines.

For the purposes of this definition, ecologically significant groundwater recharge areas are areas of land that are responsible for replenishing groundwater systems that directly support sensitive areas like cold water streams and wetlands.

Source: Growth Plan, 2020

Sustainable Community Retrofits

Focus on actions in older, urban neighbourhoods by retrofitting buildings and infrastructure, regenerating habitats and urban ecology, and revitalizing a community's social fabric. TRCA's Sustainable Neighbourhood Action Program provides examples of sustainable community retrofits.

Source: Sustainable Neighbourhood Action Program, TRCA, 2020

Urban Forest

All trees, shrubs and understorey plants, as well as the soils that sustain them, on public and private property within an urban setting.

Source: TRCA's Living City Policies, 2014

Vegetation Protection Zone

A vegetated buffer area surrounding a key natural heritage feature or key hydrologic feature.

Source: Growth Plan, 2020

Water Balance

The hydrologic cycle of precipitation, groundwater infiltration, evapotranspiration (into the atmosphere and by plant interception), and surface runoff. .

Source: TRCA's Living City Policies, 2014

Water Resource System

A system consisting of ground water features and areas and surface water features (including shoreline areas), and hydrologic functions, which provide the water resources necessary to sustain healthy aquatic and terrestrial ecosystems and human water consumption. The water resource system will comprise key hydrologic features and key hydrologic areas.

Source: Growth Plan, 2020

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Developed in collaboration with
the **Town of Ajax** and **City of Pickering**

Toronto and Region Conservation Authority

Public Review of Draft

Carruthers Creek Watershed Plan:

Comment Submissions Summary

April, 2021

Contents

1. Introduction

This report provides a summary of all the submissions from the public review comment period on the draft Carruthers Creek Watershed Plan (CCWP).

The draft CCWP was released for public review on March 13, 2020 for an expected 90-day review period. On April 8, 2020, at a special meeting of the Regional Council of Durham, the public comment period was paused until the Covid-19 emergency state was lifted. On December 16, 2020, staff were authorized to resume public engagement on the draft CCWP with the public review period closing March 19, 2021. Two virtual open houses were held in February 2021 on the draft CCWP (see Consultation Summary – February 2021).

In addition to the questions asked and positions made by attendees at the two virtual open houses, a total of 27 public submissions were received on the draft CCWP. A further 182 email submissions were provided to the Region of Durham via an Environmental Defence email campaign (See **Appendix A** for the wording of the email submission and response provided by the Region of Durham).

TRCA regularly communicated project updates through the project subscribers list, social media, municipal channels, a newspaper ad, and direct mailouts, to raise awareness of the virtual open houses, and to advise the public of the opportunity to review and comment on the draft CCWP.

2. Public Review Submissions Summary

During the public review period of the draft CCWP, submissions were received using the online comment form (19), direct email/letter submission (6), and through municipal Council processes (2).

The online comment form allowed respondents to rate the draft CCWP based on three questions in addition to allowing specific comments on sections of the plan. See **Table 1** for the ratings received. Not all respondents who used the online comment form answered these questions.

Table 1 - Rating Questions Summary

	How would you rate the draft plan structure, length, organization on a scale of 1 to 5, where 1 equals "poor" and 5 equals "excellent"?	**Is the information presented clearly and concisely? Please provide a rating on a scale of 1 to 5, where 1 equals "not at all clear and concise" and 5 equals "very clear and concise".**	**Do you support the goals, objectives, indicators and management recommendations in the draft plan? Please provide a rating on a scale of 1 to 5, where 1 equals "strongly opposed" and 5 equals "strongly supportive".**
Average Rating	4	4	4
Note: 13 submissions answered each of these questions.			

2.1 Online Submissions

Submissions using the online comment form were also able to provide general or section-specific comments, which are presented in **Table 2**. The table provides details such as the name of the individual making the submission (if provided), a summary of the comments made, and any response/changes to the CCWP as a result of the comments. Comments are presented in no particular order. Note that not all comments are included as some were outside the scope of the watershed plan. These comments included specific questions about property issues that were directly responded to by TRCA.

Table 2 - Feedback from Online Comment Forms

Section	Comments	Changes to CCWP (If applicable) / Response to Comments
General Comments	**No Name Provided** The plan is excellent to protect and monitor the health of the watershed. To have a healthy watershed, you must stop contaminants, before they need to be cleaned up!! Durham Region needs to have a better collection system, to prevent material (i.e. waste) from entering the watershed.	Comments noted.
	No Name Provided Protect the headwaters to build resiliency against climate change.	Comments noted.
	W. Parish Development of the Rouge headwaters in Richmond Hill has led to wide scale high water events that damage property and the aquatic ecosystem. Ajax will face the same issues if the headwaters are not protected and if flood control measures are not put in place. This will increase the costs to municipalities through flooding, erosion, and reduced water quality.	Comments noted. Subsection 5.4 of the CCWP identifies the studies that would be required in the event of a Settlement Area Boundary Expansion in the headwaters of Carruthers Creek.
	S. Roche The plan offers a compelling overview of the current situation and need for action to manage and maintain this watershed. The report is very well laid out. It offers a useful introduction to the many technical terms and methodological approaches used in such a comprehensive assessment and provides a thoughtful layout of the recommended actions and responses to the considerable growth and changes in Durham Region. Overall, a well written and carefully prepared report that gives	Comments noted.

Section	Comments	Changes to CCWP (If applicable) / Response to Comments
	me confidence that ecosystem health, riparian management, water quality and quantity, and regional conservation are important priorities for Durham Region.	
	A. Wilton Although the watershed is small, there are a number of significant natural heritage features. This includes coastal wetlands. Increasing forest size is important for certain species. It is good to develop these plans to help determine priorities for conservation and restoration.	Comments noted.
	M. Pileggi Great work. Very clear and concise. Watershed plan shows the importance of protecting the headwaters of Carruthers Creek.	Comments noted.
	G. Lenders Excellent, very well-organized plan of action. The watershed plan exemplifies the utmost importance of protecting, enhancing and restoring the health of the headwaters of Carruthers Creek.	Comments noted.
	B. Murphy Everything in our power should be done to protect natural features especially watersheds and biodiversity. Any scenario that reduces these should not be considered.	Comments noted.
	M. Oates Please object to the Town of Pickering pushing through their plan to build on the Carruthers Creek watershed without adequate public info or meetings. Shame on Pickering!	Comments noted.
	No Name Provided You have to stop allowing our ecosystems and greenspace to be ruined.	Comments noted.
	D. McLaughlin The intentions of the CCWP seem to be good, but there are some deficiencies to be addressed. Climate change considerations appear to be factored in, but according to reports from a number of credible sources (numerous articles provided), climate models have gravely underestimated the pace of climate change. Consequently, the analyses and	The purpose of scenario modelling is to evaluate a range of potential future outcomes and measure the associated impacts on the watershed. This allows for the

Section	Comments	Changes to CCWP (If applicable) / Response to Comments
	recommendations of the CCWP are inadequate due to the conservative bias of the climate models. Concern that the good intentions of the watershed plans can be superseded by the decision-making powers of political entities involved in land use planning and development (e.g. little progress made from previous plan, continuing losses of natural cover). Another area of concern is chlorides, which will be exacerbated by any further urban expansion. Due to these concerns, here are some recommendations: • Highest priority should be given to protecting and expanding the natural heritage and water resources • The three scenarios detailed in the CCWP should be scrapped • A new, sole scenario should replace those scenarios and include the following objectives: o Prohibit any new urban or agricultural expansion north of Taunton Road, o Pursue efforts to enhance and expand the Natural Heritage System (NHS) and Water Resource System (WRS) beyond that described in the CCWP. To that purpose, acquire all relevant properties as they become available, and o Conservation authorities, not susceptible to pressure from politicians and the development industry should have the power to veto any plans or developments that adversely impact watersheds.	development of appropriate management recommendations so that the health and integrity of the watershed can be maintained and improved under a range of future scenarios. The mandate of conservation authorities is governed by the *Conservation Authorities Act.* The CCWP places high priority on protecting the NHS and WRS (Goal 2 and 3). The CCWP places significant emphasis on protecting, enhancing, and restoring both the WRS and NHS by: • recommending policies, • identifying enhancement areas, and • identifying priority restoration and public land securement sites. The development of the CCWP has been a collaborative effort between TRCA, the Region of Durham, City of Pickering, and Town of Ajax.

Section	Comments	Changes to CCWP (If applicable) / Response to Comments
	J. Longo Greater value needs to be given to our natural areas. I appreciate the quality of work the conservation authorities engage in and would like to support them further. Let's see less minimum standards and more maximization of our natural areas. There needs to be a cost for the destruction poor planning creates that does not fall on taxpayers. In light of recent reporting on the limitations placed on the TRCA by the provincial government, I am concerned that municipalities might choose to limit the involvement of the TRCA. For instance, the Veraine development in the northern end of the watershed makes me worry that Pickering will try to do something like they are doing with the Duffins Creek watershed. I would also like to lend my support to TRCA and their function of managing flooding and preserving/enhancing the natural heritage, wildlife, and water quality of the watershed.	The CCWP encourages increases to natural areas through enhancements, restoration, and public land securement. There are management recommendations to improve development standards and encourage the use of green infrastructure under Goal 1. Subsection 5.4 of the CCWP identifies the studies that would be required in the event of a Settlement Area Boundary Expansion in the headwaters of Carruthers Creek.
	C. Pryce I just want to show my support to protect the watershed from development. Protecting wildlife biodiversity and preparing for the results of climate change is of the utmost importance to me.	Comments noted.
Executive Summary	**S. Roche** It might be useful to add a few more comments about the recommended actions for policymakers. This will ensure that those that do not read the full document still have a sense of the key actions.	The Executive Summary has been updated to highlight some key components of the management framework.
Section 4: Future Watershed Conditions	**S. Roche** I think this section is nicely laid out and presents a strong framework for decision-making regarding the strategies that make Scenarios 1 through 3 reality. One minor suggestion might be to categorize the Summary of Implications section by Scenario, providing a summary statement of how well each scenario performs, and then the specific comments pertaining	The summary of implications has been updated to provide a summary statement per scenario in relation to the key issues of: WRS, NHS,

Section	Comments	Changes to CCWP (If applicable) / Response to Comments
	to each. As a reader not having reviewed this content before, I naturally wanted to see a breakdown of the overall effects by scenario, which followed the table format.	water quality, and natural hazards.

2.2 Letter Submissions

In addition to submissions using the online comment form, six letters were directly submitted to TRCA. **Table 3** provides the name of the individual or group that submitted the letter, a general summary of the comments received, and any response/changes to the CCWP as a result of the comments. Comments are presented in no particular order.

Table 3 - Summary of Letter Submission Comments

Comments	Changes to CCWP (If applicable) / Response to Comments
S. Parish	
Engagement Process Concern that the online comment form is not designed to get meaningful input and that Covid-19 will prevent meaningful engagement.	The online comment form included rating questions and allowed for detailed comments for each section of the plan. The draft CCWP was publicly released on March 13, 2020. The originally planned April 30, 2020 open house was cancelled due to the Covid-19 pandemic. Two virtual open houses were held in February 2021, with comments due March 19, 2021. A Consultation Summary of the Public Review of Draft Carruthers Creek Watershed Plan is available. A total of 134 individuals attended the virtual open houses held in February 2021, compared to approximately 50 individuals that intended the in-person open houses in Ajax and Pickering on the draft management framework in October 2019.
Implications of Headwater Development Concern regarding the implications of scenario 3 (headwater urbanization) to the Water Resource System and natural hazards (i.e. flooding). The plan talks about mitigation using green development policies and low impact development techniques but does not quantify the costs of any development to	As noted in the draft CCWP, scenario analysis does not result in decisions about the type and configuration of land uses. The Region of Durham is currently undertaking its Municipal Comprehensive Review, which will determine whether there is a need for any Settlement Area Boundary Expansions. In the event that a Settlement Area Boundary Expansion is

Comments	Changes to CCWP (If applicable) / Response to Comments
taxpayers of Ajax. Urges TRCA to recommend against scenario 3 clearly and unequivocally.	approved for the lands in northeast Pickering (i.e. Carruthers Creek headwaters), the management recommendations outlined in subsection 5.4 of the CCWP would apply. These recommendations outline the types of studies that would need to occur if development is approved. The issue of funding the appropriate flood mitigation has been added to the relevant management recommendation.
Ontario Headwaters Institute	
Comment Review Process Concern that public comments will not be transparently handled and addressed. Suggests that members of the public should be part of the review team.	TRCA has consistently posted consultation summaries on the project webpage at each stage of this watershed planning process. This document serves as the record of comments received during the public review of the draft CCWP and how the comments are being addressed. The Region of Durham is including this record as part of its report to Committee and Council.
Evans Planning on behalf of Pinebrown Salem Lands Ltd.	
Scenario 3 Land Use Designation Concern that lands at the south-east corner of Salem Road and Seventh Concession are designated as a natural area under Scenario 3. Given that the subject lands were previously identified as a Regional Centre in the previous draft of the Region of Durham Official Plan, it is anticipated that these lands will be incorporated into the urban boundary through the Region's current Municipal Comprehensive Review process. The subject lands do not contain any significant environmental features. The Natural Area land use designation should be removed.	The subject lands are identified as "potential" natural cover in the recommended NHS. These areas are recommended for restoration to build resilience into the NHS. The recommended NHS uses the latest data, science, and modelling approaches to: • increase natural cover to a sufficient quantity, • protect natural system quality, • protect biodiversity, and • manage climate vulnerabilities. The subject lands abut existing natural cover. An enhanced NHS has benefits for water quality, the aquatic system, and can reduce the amount of runoff through increased retention and infiltration. At this time, no decision has been made by the Region of Durham through the Municipal Comprehensive Review process for a Settlement Area Boundary Expansion in northeast Pickering.

Comments	Changes to CCWP (If applicable) / Response to Comments
Scenario Analysis Implications – Water Resource System and Natural Hazards The usage of engineered porous surfaces (LIDs) and other engineered solutions to stormwater runoff are not considered. As a result, the estimated impacts for scenarios 2 and 3 appear to be inflated and do not reflect the reality of modern development. A conventional stormwater management pond can aid in achieving necessary flood control within future urban areas.	The following updates have been made to the CCWP: • Text has been added to Table 3 to explain the assumptions made in Scenario 3 and the appropriate stage of the planning process for detailed assessment of mitigation options. • Text has been added to Subsection 4.3 elaborating on potential mitigation strategies. • The percent change associated with each scenario for the natural hazards has been modified to show change at both Taunton and Shoal Point Roads for the Regional Storm rather than an average. Text has been added explaining what the Regional Storm and 5-years storm mean. Additionally, a footnote has been added to explain that the modelling for the Regional Storm assumes existing stormwater management facilities fail or at capacity. As a result, the numbers for peak flows would not change for the Regional Storm since a conventional stormwater management pond cannot accommodate this storm event. • The summary of implications at the end of Subsection 4.3 have been clarified, connecting them to the appropriate management recommendations (e.g. Subsection 5.4 for further studies in the event of headwater development). Subsection 5.4 of the CCWP identifies the studies that would be required in the event of a Settlement Area Boundary Expansion in the headwaters of Carruthers Creek. It is at those detailed planning stages where decisions on engineering solutions would be made.
Scenario Analysis Implications – Natural Heritage System The NHS scenario analysis did not take into consideration parkland dedication within potential development lands. Parkland size and shape can	Parkland is a different land use that is not consistent with the natural heritage features and areas that comprise the NHS. For example, parkland can refer to open fields, recreation spaces (e.g. tennis courts),

Comments	Changes to CCWP (If applicable) / Response to Comments
positively influence and contribute to the NHS providing for natural habitat connectivity, preservation of core features and provide buffers between land uses.	or community centres, which are not compatible with the NHS goal and objectives. Currently the subject lands are not within the urban boundary. Due to this, there were no specific parkland locations or sizes to model. Opportunities to protect, enhance, and restore natural heritage features and areas would be considered at the appropriate planning stage if this were to change, including parkland as a potential buffer between land uses.
Tile Drainage Conversion of agricultural lands, removal of tile drainage and replacement by modern stormwater infrastructure and green infrastructure would reduce the estimated risk of flooding and erosion.	Currently the subject lands are not within the urban boundary. Mitigation strategies supported by science would be identified at the appropriate planning stage if this changes.
Conclusion We found the Authority's recommendations within the Draft Watershed Plan to be concerning, with lack of consideration for modern, green, and engineered infrastructure. As a result, estimated impacts appear to be inflated and do not reflect the reality of modern development. The subject lands are within the Region's "whitebelt" lands and are poised for future urban development given their strategic location at the intersection of Salem Road and Seventh Concession Road. The lands do not contain any significant environmental features and the sterilization of these lands is not appropriate and unnecessary.	The draft CCWP and its recommendations were developed in collaboration with municipal partners. Goal 1 and its associated objectives and management recommendations relate to improved land use and infrastructure development patterns, including low impact development, green infrastructure, and improved stormwater management. Currently the subject lands are not within the urban boundary and no decision has been made on a Settlement Area Boundary Expansion. The findings of the hydrology assessment are consistent with the previous Cole study completed in 2011. One of the key purposes of the CCWP was to demonstrate the potential implications of future development on the watershed, so that the level of impact that needs to be mitigated is clear. It will be up to proponents of potential future development to identify how that impact will be mitigated at the appropriate planning stage, in accordance with provincial policy.

Comments	Changes to CCWP (If applicable) / Response to Comments
	Refer to previous response on the purpose of the NHS.
Ontario Nature, Environmental Defence, Land Over Landings, Environmental Action Now Ajax - Pickering	
Vision and Goals Congratulations on the thoroughly researched and expertly presented draft plan that you have developed for the Carruthers Creek Watershed. We fully support its vision and the three goals for land use, the WRS, and the NHS.	Comments noted.
Concluding Remarks Looking across the three scenarios, it is evident that only scenario 2 supports the goals of protecting, enhancing, and restoring water quality, the water resource and natural heritage systems. Scenario 3, which assumes development in the headwaters, would lead to a decline in watershed health across the board. The Planning Team should include concluding remarks related to the adverse impacts of urbanization on the headwaters of Carruthers Creek.	The summary of implications in the CCWP has been updated to better communicate the implications of each scenario and what that means. As noted in the draft CCWP, scenario analysis does not result in decisions about the type and configuration of land uses. The management framework in section 5 of the CCWP is designed to address existing watershed issues and the implications of the potential future scenarios to help inform land use planning decisions.
North East Pickering Landowners Group Inc. (NEPLG) – See Appendix B for Comments on Technical Reports	
Recommended Natural Heritage System During public engagement, TRCA staff noted that there will be opportunities to refine the proposed NHS with appropriate scientific justification that meets the goals and objectives of the Watershed Plan. The CCWP should be revised to include the following wording: “opportunity for refinement of the NHS would be possible with appropriate scientific justification that still meets the targets and objectives of the Watershed Plan.” There is no mention in the management recommendations that the exact size and configuration of the NHS could fluctuate based on the required future studies. It is requested that Map 2 include wording in this regard as well.	Text has been added to the introduction to Goal 3 and map 2 to address this comment. Management recommendation 3.1.1 has been updated to elaborate on the role of the Region of Durham to provide direction to lower-tier municipalities on the designation of a NHS within lower-tier Official Plans. Language has been added to the management recommendation to distinguish between the need to protect existing natural cover as identified in map 2 and having policies to identify enhancement and restoration opportunities for potential natural cover areas as identified in map 2.

Comments	Changes to CCWP (If applicable) / Response to Comments
Future Management Scenarios Concern that Scenario 2 and 3 are unrealistic scenarios because: • Scenario 2 assumes that existing rural community will voluntarily set aside significant portions of their agricultural operations for the creation of an enhanced NHS • Scenario 3 is unrealistic as unmitigated development is not allowed given minimum watershed management mitigation and protection requirements. Modelled as unmitigated, the 77% increase in downstream flooding on page 38 is misleading and paints a negative picture related to future development, and is not consistent with overall provincial policy. • Scenario 3 is not permitted based on provincial policy.	The scope of the scenarios as presented in the draft CCWP was developed by TRCA in collaboration with its municipal partners. For scenario 2, the design of the enhanced NHS was based on objectives to: • increase natural cover to a sufficient quantity, • protect natural system quality, • protect biodiversity, and • manage climate vulnerabilities. These objectives test the benefits of an enhanced NHS. An enhanced NHS has benefits for water quality, the aquatic system, and can reduce the amount of runoff through increased retention and infiltration. Under Goal 1, objective 4 recognizes the need to work with the agricultural community on rural land stewardship. In the event that urbanization does not occur within the headwaters, TRCA would use the enhanced NHS to identify opportunities with rural land owners (e.g. incentive programs, grants, etc.). The flooding results cited (77%) represent an average of two points in the watershed for the Regional Storm (i.e. Hurricane Hazel). As noted in the Hydrological Assessment Technical Report, existing stormwater management facilities were removed from the model to account for the system failing or being at capacity during the Regional Storm event. Subsection 5.4 of the draft CCWP addresses additional studies that would be needed to identify appropriate mitigation measures in the event of future development based on more detailed planning applications. The findings of the hydrology assessment are consistent with the previous Cole study completed in 2011. One of the key purposes of the CCWP was to demonstrate the potential implications of future development on the watershed, so that the level of

Comments	Changes to CCWP (If applicable) / Response to Comments
	impact that needs to be mitigated is clear. It will be up to proponents of potential future development to identify how that impact will be mitigated at the appropriate planning stage, in accordance with provincial policy. The following updates have been made to the CCWP in relation to the comments: • Text has been added to Table 3 to explain the assumptions made in Scenario 3 and the appropriate stage of the planning process for detailed assessment of mitigation options, • Text has been added to Subsection 4.3 elaborating on the potential mitigation strategies, • The percent change associated with each scenario for the natural hazards has been modified to show change at both Taunton and Shoal Point Roads for the Regional Storm rather than an average. Text has been added explaining what the Regional Storm and 5-years storm mean. Additionally, a footnote has been added to explain that the modelling for the Regional Storm assumes existing stormwater management facilities fail or at capacity, and • The summary of implications at the end of Subsection 4.3 have been clarified, connecting them to the appropriate management recommendations (e.g. Subsection 5.4 for further studies in the event of headwater development).
Enhanced Natural Heritage System Scenario 2 and 3 include an enhanced NHS that is also the TRCA recommended enhanced NHS (map 2) to achieve the third goal. While the NEPLG is committed to the goals within the CCWP, the recommended NHS is misleading as it is the only measure to increase	Provincial policies, including the definition of the NHS, recognize the importance of regional and site-scale connectivity as part of natural heritage system planning. The recommended NHS uses the latest science and practices in natural systems planning. The recommended NHS represents a realistic and attainable system for this urbanizing watershed that

Comments	Changes to CCWP (If applicable) / Response to Comments
diversity and mitigate the impacts of development (Scenario 3). • CCWP makes recommendations for linkage corridors that are consistent with the size and scale of Regional Corridors (500m or more in width). However, these Regional Corridors have already been established through the Greater Golden Horseshoe NHS system and include the Duffins Creek and Iroquois Shoreline. Local connectivity to these systems will likely require smaller corridors that are more consistent with the existing watercourses.	is more consistent with federal guidance on how much habitat is necessary to maintain ecological functions and biodiversity. The referenced recommended corridor widths are minimums. The recommended enhanced NHS is about improving connectivity and building long-term resilience to the potential impacts of future growth and climate change.
Regional Planning The use of the CCWP in the land use planning process needs to be clarified, and significant adjustments made if the intent is that the Region will use this work to update its Official Plan. If this is the case, the work will be used as a land use planning exercise and must be prepared in the context of overall good planning and the public interest. A scenario must be included which assumes full inclusion of northeast Pickering within a settlement area. So as not to preclude the appropriate development of this area, the form and size of the NHS should be appropriately balanced with the overall land use planning objectives of the Provincial Policy Statement and the Growth Plan for the Greater Golden Horseshoe, such as the need to provide for compact and connected communities, viable employment areas, walkability and transit supportive development, and the cost effective and efficient extension of infrastructure. This will typically result in a feature-based NHS with limited linkage areas and a heavier reliance on green infrastructure to support natural processes. In particular, the onus is upon the Region to implement, and where appropriate refine the provincial mapping of the NHS for the Growth Plan at the time of initial implementation in their official plan. If the work prepared by the TRCA will be used by the Region to	Scenario 3 assumes development in northeast Pickering. Provincial policies recognize the integrated nature of natural heritage and water resource systems, and recognize the watershed as the meaningful ecological scale for long-term planning (PPS 2.2.1, Growth Plan 4.2.1 and 4.2.2). PPS policy 2.1.2 states: > The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features. The methods utilized to develop the enhanced NHS as part of the CCWP are consistent with the provincial policy framework, which encourages a systems-based approach. The watershed plan is one of many studies and factors that the Region of Durham will need to consider as part of its Municipal Comprehensive Review. The identification of an “enhanced” or “targeted” NHS is standard practice in contemporary watershed

Comments	Changes to CCWP (If applicable) / Response to Comments
update/refine the NHS in northeast Pickering, then this work must occur within, and not outside of the overall MCR process.	planning exercises. The Region of Durham is considering how to appropriately implement Natural Heritage Systems, including the recognition of enhanced/targeted components through the Municipal Comprehensive Review process. It is acknowledged that the policy treatment for "enhancement" cover areas could be different than existing natural cover areas. A management recommendation that supports this general approach has been included in the final watershed plan to provide flexibility in how the Region and Area Municipalities implement the enhanced Natural Heritage System through their respective land use planning instruments. Management recommendation 3.1.1 has been updated accordingly.
CCWP Land Use Definitions Some residential estates, golf courses, cemeteries and hydro corridors are designated as agricultural uses and therefore the total agricultural lands are overstated in the CCWP analysis.	Footnote 6 on page 23 of the draft CCWP explains that water, recreational, golf courses, cemeteries, and hydro corridors are not included in the statistics for changes to land cover cited in Subsection 3.2. The draft CCWP mapping uses three general land use classifications (urban, rural, natural) for simple visualization. The technical analyses used more detailed land use classifications than what is presented in the mapping to determine results.
Pickering Planning and Development Committee Report It should be noted that NEPLG supports all three recommendations within Pickering Report to Planning and Development Committee from September 14, 2020.	Comment noted. **Subsection 2.3, page 19** of this document considers and responds to the comments in the referenced report.
Stakeholder Advisory Committee Requesting participation in a Committee which would provide an opportunity for transparency, sharing of information and advancement of the CCWP.	TRCA and its municipal partners will consider the establishment of a Stakeholder Advisory Committee to guide implementation planning of the watershed plan.

Comments	Changes to CCWP (If applicable) / Response to Comments
Fieldgate Developments (TFP Pickering Developments Limited)	
TRCA staff mentioned during the February 2021 virtual open houses that three methods were used to determine the NHS being promoted with the study. The results and the methods seem to be beyond which is supported by Provincial Policy and that which is customary through the TRCA's role in the review and commenting on planning applications and processes. While we recognize that the Watershed Plan is not a planning document it appears to represent TRCA's position on an NHS system to be further used by its municipal partners to inform planning and growth considerations. Additional clarification is requested on the TRCA adopted methods and how they relate to current planning practices, the conservation authority's mandate and adherence to Provincial Policy Statement and the Growth Plan for the Greater Golden Horseshoe.	In 2015, the Region of Durham retained TRCA to complete a watershed plan update for Carruthers Creek. The development of the watershed plan supports the Municipal Comprehensive Review process being undertaken by Durham Region and provincial policies related to watershed planning, which encourage collaboration between municipalities and conservation authorities (Growth Plan 4.2.1.1). The Provincial Policy Statement (2020) defines the NHS as: a system made up of **natural heritage features and areas**, and **linkages intended to provide connectivity (at the regional or site level**) and support natural processes which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species, and ecosystems. These systems can include natural heritage features and areas, federal and provincial parks and conservation reserves, other natural heritage features, lands that have been restored or have the **potential to be restored to a natural state**, **areas that support hydrologic functions,** and **working landscapes that enable ecological functions to continue**. The Province has a recommended approach for identifying natural heritage systems, but **municipal approaches that achieve or exceed the same objective may also be used.** **(Bold added for emphasis)** Further, provincial policies recognize the integrated nature of natural heritage and water resource systems, and recognize the watershed as the meaningful ecological scale for long-term planning

Comments	Changes to CCWP (If applicable) / Response to Comments
	(PPS 2.2.1, Growth Plan 4.2.1 and 4.2.2). PPS policy 2.1.2 states: > The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features. The methods utilized to develop the enhanced NHS as part of the CCWP are consistent with the provincial policy framework. Details on the methods used to develop the recommended enhanced NHS can be found in the *Terrestrial Impact Assessment Technical Report*. TRCA conducts itself in accordance with the objects, powers, roles, and responsibilities set out for conservation authorities under the *Conservation Authorities Act* and the MNRF Procedural Manual chapter on conservation authorities' policies and procedures for plan review and permitting activities, such as a public commenting body under the *Planning Act,* a service provider to municipal partners, and a resource management agency. This includes the review of municipal planning documents like official plans and zoning by-laws (Plan Input) and development applications under the *Planning Act* (Plan Review). In these roles, and as stated in MECP's "A-Made-In-Ontario Environment Plan," conservation authorities work in collaboration with municipalities and stakeholders to protect people and property from flooding and other natural hazards, and to conserve natural resources.
TFP Pickering requests further dialogue with TRCA and other partners as this plan develops. This is required as the promotions directly impacts the TFP Pickering	This watershed planning process was initiated in 2015. The recent conclusion of the public comment period on the draft CCWP was the final phase of

Comments	Changes to CCWP (If applicable) / Response to Comments
lands, and such promotions should be considered jointly and on consensus. Given this, we support the option of direct stakeholder engagement in decisions and not through online presentations, so that regular discussions can occur. Further these discussions should occur concurrently and with considerations on the establishment of a Structural Plan with the City of Pickering and the regional growth plan exercise. This will ensure a sustainable outline that considers the environment first while looking at complete communities, land needs, and adhering to current planning policies.	public consultation. The CCWP has been updated to address feedback from this public review and submitted to Durham Regional Council for consideration. Reports to Council and the records of the various engagement activities undertaken throughout this process are available on the project webpage. On December 16, 2020, Durham Regional Council authorized staff to resume public consultation to advance the completion of the watershed plan via virtual engagement, which have become a well accepted form of public engagement during Covid-19. Two virtual open houses were held at the beginning of February, attended by a total of 134 individuals, compared to the approximately 50 individuals that attended in person open houses held in Ajax and Pickering in October 2019. The TFP Pickering lands are not currently within the urban boundary. The Region of Durham is currently undertaking its Municipal Comprehensive Review, which will determine whether there is a need for any Settlement Area Boundary Expansions, and if so, where they should occur. In the event that a Settlement Area Boundary Expansion is approved for the lands in northeast Pickering, the management recommendations outlined in subsection 5.4 of the CCWP would apply. These recommendations outline the types of studies that would need to occur prior to planning approvals.
Based on a review of the draft CCWP, prepared by TRCA on behalf of the Region of Durham, it is unclear what the intent of the CCWP is related to the future consideration of lands in northeast Pickering related to urban area expansion. The NHS is mentioned to be refined in the future keeping with the goals of the CCWP, however, the current analysis does not appear to include overall land use planning objectives of the PPS to guide this process and particularly, environmental takeouts. As the CCWP has not been promoted as a planning tool and since the CCWP work	The watershed plan is one of many studies and factors that the Region of Durham will need to consider as part of its Municipal Comprehensive Review. As noted earlier, the analysis is consistent with provincial policies like the PPS. The identification of an “enhanced” or “targeted” NHS is standard practice in contemporary watershed planning exercises. The Region of Durham is considering how to appropriately implement Natural Heritage Systems, including the recognition of enhanced/targeted components through the

Comments	Changes to CCWP (If applicable) / Response to Comments
is being conducted concurrent with planning studies underway please indicate how the studies are to be integrated given the objectives of this plan. Perhaps in consideration of point 2 above there can be better integration to establish one NHS system which can be used as a baseline in establishing recommendations for the watershed and for planning studies.	Municipal Comprehensive Review process. It is acknowledged that the policy treatment for "enhancement" cover areas could be different than existing natural cover areas. A management recommendation that supports this general approach has been included in the final watershed plan to provide flexibility in how the Region and Area Municipalities implement the enhanced Natural Heritage System through their respective land use planning instruments. TRCA has developed the recommended NHS in collaboration with municipal partners and based on in-house technical expertise using the latest science and practices in natural systems planning. The recommended NHS is more consistent with federal guidance on how much habitat is necessary to maintain ecological functions and biodiversity. The recommended NHS represents a realistic and attainable system for this urbanizing watershed and has been demonstrated to assist with achieving broader watershed goals beyond terrestrial ecosystems considerations (e.g. aquatic ecosystem improvements, reduction in peak flows for smaller storm events). Refinements to the recommended NHS may be considered assuming the scientific analysis is consistent with the goals and objectives of the CCWP.

2.3 Committee Reports – City of Pickering and Town of Ajax

On September 14, 2020, City of Pickering staff presented a report to the Planning and Development Committee with recommended changes to the draft CCWP. On October 5, 2020, Town of Ajax staff presented a report to the Community Affairs and Planning Committee with recommended changes to the draft CCWP. **Table 4** identifies the recommended changes and responses to both committee reports.

Table 4 - Committee Reports - City of Pickering and Town of Ajax

Comments	Changes to CCWP (If applicable) / Response to Comments
City of Pickering	
Provide greater clarity about the "77%" figure identified as the potential increase in downstream peak flows under the hypothetical land use Scenario 3 modelling analysis including: explaining that it is a "worst case" scenario and why; identifying the rainfall and storm duration parameters for a Hurricane Hazel type event; and relating the modelled increases in peak flows to the proposed management recommendations;	The following updates have been made to the CCWP: • Text has been added to Table 3 to explain the assumptions made in Scenario 3 and the appropriate stage of the planning process for detailed assessment of mitigation options, • Text has been added to Subsection 4.3 elaborating on the potential mitigation strategies, • The percent change associated with each scenario for the natural hazards has been modified to show change at both Taunton and Shoal Point Roads for the Regional Storm rather than an average. Text has been added explaining what the Regional Storm and 5-year storms mean. Additionally, a footnote has been added to explain that the modelling for the Regional Storm assumes existing stormwater management facilities fail or at capacity, and • The summary of implications at the end of Subsection 4.3 have been clarified, connecting them to the appropriate management recommendations (e.g. Subsection 5.4 for further studies in the event of headwater development).
Revise Management Recommendation 3.1.1 respecting the protection, expansion and restoration of the NHS in the watershed, to reflect discussion in the introductory text that precedes Table 8: NHS Management Recommendations, to allow consideration of alternative configurations, size and	Text has been added to the introduction to Goal 3 and map 2 to address how refinements to the recommended NHS will be considered. Management recommendation 3.1.1 has been updated to elaborate on the role of the Region of

Comments	Changes to CCWP (If applicable) / Response to Comments
composition for an enhanced NHS to that identified on Map 2 of the Draft CCWP.	Durham to provide direction to lower-tier municipalities to designate a NHS within Official Plans. Language has been added to the management recommendation to distinguish between the need to protect existing natural cover as identified in map 2 and having policies to identify enhancement and restoration opportunities for potential natural cover areas as identified in map 2.
Adding a new Management Recommendation 1.3.6 stating that TRCA continues to support and enhance the existing flood model by increasing the number of rainfall monitoring stations and stream flow gauges on all tributaries including the most minor.	TRCA expanded its monitoring network in the Carruthers Creek watershed by installing two new monitoring stations in 2019 to collect more precipitation data in the watershed. These are represented by water quantity stations #5 and #6 as illustrated in Figure 7 of the draft CCWP. One station is just north of Taunton Road, the other north of Hwy 407. Section 6 on Monitoring and Evaluation discusses the need to add additional monitoring stations to track watershed health (See page 56). Text has been added to this section about expanding the monitoring network in the event of further development.
Town of Ajax	
Management recommendation 1.1.1 encourages new development to minimize impervious cover while controlling higher levels of stormwater. Whereas, less stringent requirements are applied to redevelopment. The management recommendation recognizes it may be more difficult to rehabilitate existing developed to comply with the increased standards, while still applying a quantitative target. A minor amendment is requested to strengthen the management recommendation by replacing the word 'should' with 'shall' to ensure that this management recommendation is incorporated into Official Plan policy and related standards.	The requested change has been made.

Comments	Changes to CCWP (If applicable) / Response to Comments
Management recommendation 1.1.3 requires that a Terms of Reference be prepared to require additional study, such as completion of a hydraulic assessment, among other requirements, if a SABE is required. Staff have the following comments: While staff agree that a Terms of Reference is required to complete the additional study work and analysis, the management recommendation places the requirement to prepare the ToR on the Region, with input from TRCA, Ajax and Pickering. This management recommendation should be revised to 'require agreement' on all components of the ToR between the Region, TRCA, Ajax and Pickering before commencing work. Staff acknowledge that additional information, such as detailed land uses and mapping are needed prior to undertaking a Hydraulic Analysis. Staff are also of the opinion that such an analysis needs to occur at the earliest stage possible. Therefore, the management recommendation should be revised to require the completion of a Hydraulic Analysis during subwatershed planning and development of the secondary plan, but prior to any planning approvals. It should clearly identify the timing for the completion of work if Scenario 3 proceeds by adding "and secondary planning, prior to planning approvals" after subwatershed planning to read "to develop a Terms of Reference outlining requirements for further studies in support of subwatershed and secondary planning, prior to planning approvals, that includes, but is not limited to . . ."	Management recommendation 1.1.3 has been updated to clarify the process and require consensus among the relevant parties on future studies. Management recommendation 2.1.4 has been updated to address these comments.
Management recommendation 1.3.5 regarding flood plain mapping should be clarified. Staff agree that this is an essential management recommendation regardless of which scenario proceeds. However, staff have concerns related to the timing of this management recommendation. Staff believe that mapping needs to occur at the earliest stage possible. Therefore, the management recommendation should	Flood plain mapping is routinely updated as municipal Official Plans change and with the most recent topographical information. This management recommendation has been updated to clarify the flood plain mapping process. Management recommendation 2.1.4 addresses what conditions must be met through secondary planning

Comments	Changes to CCWP (If applicable) / Response to Comments
be revised to require the completion of the updated mapping during secondary planning and sub-watershed planning, but prior to any planning approvals in the headwaters.	in the event of a Settlement Area Boundary Expansion, including a hydraulic analysis (to quantify and map depth and extent of potential flood impacts).
Management recommendation 2.1.1 related to the protection of the Water Resource System should be updated to remove adequately from clause a.	The requested change has been made.
Management recommendation 3.1.1 outlines initiatives that need to be undertaken to protect, enhance and restore the NHS. The current Official Plans of the Region of Durham, City of Pickering, and Town of Ajax have different approaches to protecting the NHS. A consistent approach should be applied to the entire watershed, which 'designates' the enhanced NHS in the Regional Official Plan and area municipal Official Plans; similar to the Growth Plan, 2020 approach to designating the Provincial NHS in expanded Settlement Areas. As written, the management recommendation only recommends that the municipally 'adopted' enhanced NHS be protected. Recommending only that the municipally adopted enhanced NHS be protected creates ambiguity and undermines the work completed in this watershed plan. Therefore, management recommendation 3.1.1 a) should be strengthened by replacing the word 'adopted' with 'designated' to read "updating Official Plan policies and associated zoning by-laws to protect a municipally designated enhanced NHS" in order to provide greater and consistent protection of the enhanced NHS throughout the watershed. Similarly, management recommendation 3.1.1 f) should also be amended to replace the word 'adopted' with 'designated' to read "requiring development and redevelopments be designated and approved to prevent encroachment into the municipally designated NHS."	Management recommendation 3.1.1 has been split into two recommendations: one for the Region of Durham and one for lower-tier municipalities. 'Designated' has replaced 'adopted' for the lower-tier recommendation. The principle of achieving an overall 'net gain' where possible is already established in TRCA's ecosystem compensation guideline. The 1:1 ratio only applies to habitat types that can be restored without a long delay in re-establishing the lost ecosystem structure and function. Aside from the increased restoration ratios, there are several opportunities to achieve a net gain as part of the guideline. This includes improved ecosystem quality through enhanced restoration and locating restoration sites adjacent to other natural areas to create large, consolidated ecosystems. The management recommendation has been updated to clarify that ecosystem compensation policies should meet or exceed TRCA's guideline.

Comments	Changes to CCWP (If applicable) / Response to Comments
To date, staff have not supported implementing ecosystem compensation protocol policies into the Town's Official Plan in order to prioritize avoidance and protection of features. Further, where compensation has been accepted by the Town, a net gain in environmentally protected land area has been required; whereas the TRCA protocol permits a 1:1 ratio for the lowest level of compensation. Therefore, it is staff's position that adopting TRCA's guidelines for ecosystem compensation be removed; unless the guideline is amended to require greater compensation rations for the lowest level of protection.	
Similar to above, management recommendation 3.1.5 should be updated to replace 'adopted' with 'designated' related to the NHS.	The requested change has been made.
Management recommendation 3.1.6 requires wetland water balance studies be completed by landowners of any potential growth in areas in northeast Pickering, prior to planning approvals. The wording should be strengthened by replacing the word 'should' with 'is to' to read 'wetland water balance studies that demonstrate how the hydrologic function of the wetland is to be protected . . .'	The requested change has been made.
The scenario analysis beginning on page 34 of the draft plan demonstrates how the watershed reacts to each scenario. The draft plan compares Scenario 1 against the current conditions (2016). However, the plan changes its approach by comparing Scenarios 2 and 3 against Scenario 1, instead of comparing these scenarios to current conditions. Staff believe that consistent benchmark, using the current conditions, should be used for all scenario evaluations. Although Scenario 1 is approved in Official Plans and is anticipated to occur, it is difficult for the average reader to understand or visualized future conditions resulting from the current approved Official Plan. It is easier for the reader to use their	The technical work conducted during the scenario analysis stage included some assessments that compared scenarios 2 and 3 to scenario 1, while scenario 1 was compared to existing conditions (e.g. hydrological assessment). To ensure consistency across technical disciplines the results presented in subsection 4.3 of the draft CCWP are all presented in this manner.

Comments	Changes to CCWP (If applicable) / Response to Comments
understanding of current conditions within the watershed as the basis when comparing future conditions. Therefore, staff believe that Scenario's 2 and 3 should be adjusted such that the results are compared against the current conditions.	

3. Summary of Key Changes to the CCWP

As noted in **Table 2**, **Table 3**, and **Table 4** edits to the draft CCWP have been made to address feedback from public review. **Table 5** identifies the section and page number of the CCWP that was changed, the original text, and the revised text.

Table 5 - Summary of Key Changes to the CCWP

Section / Page Number	Original Text	Revised Text
Executive Summary	Revision is new text.	**The management framework is focused on:** • **Achieving more sustainable land use and infrastructure development patterns through the use of low impact development and green infrastructure policies, improved stormwater management, managing the risks of flooding and erosion, and implementing agricultural best management practices** • **Protecting, enhancing, and restoring the WRS and improving aquatic habitat connectivity** • **Protecting, enhancing, and restoring the NHS and increasing urban forest cover**
4.2 Future Scenarios Table 3 Page 32	Scenario 3: This scenario assumes post-2031 development in the headwaters of Carruthers Creek (north of the Greenbelt), outside the enhanced NHS. This scenario provides insights into how watershed conditions will likely change if potential full growth is approved in the watershed.	This scenario assumes post-2031 development in the headwaters of Carruthers Creek (north of the Greenbelt), outside the enhanced NHS. **This scenario made general assumptions on the types of land uses associated with typical urbanization. It did not make assumptions on the levels of stormwater management controls or other mitigation measures (e.g. green infrastructure) that may accompany urban development. This level of analysis would be completed during subsequent planning stages when detailed land use configurations are known.** This scenario provides insights into how watershed conditions will likely change if

Section / Page Number	Original Text	Revised Text
		potential full growth is approved in the watershed.
4.3 Scenario Analysis Pop-out box Page 34	It is important to note that scenario analysis does not result in decisions about the type and configuration of land uses. Instead, scenario analysis helps to inform decisions through the municipal planning process (e.g. Official Plans). It is the responsibility of the applicable municipality to determine the ultimate land use configuration for any future changes within the watershed.	It is important to note that scenario analysis does not result in decisions about the type and configuration of land uses. Instead, scenario analysis helps to inform decisions through the municipal planning process (e.g. Official Plans). It is the responsibility of the applicable municipality to determine the ultimate land use configuration for any future changes within the watershed. **Appropriate mitigation strategies are developed during the detailed planning stages for new developments once the scope of any future land use change is known. These mitigation strategies include assessments of the appropriate levels of stormwater controls, the use of green infrastructure to maintain natural water balance as much as possible, and opportunities for ecological restoration.**
4.3 Scenario Analysis Water Resource System Page 35	Footnote 11: This assessment does not consider protection measures for the WRS. For example, if impervious surfaces were minimized in groundwater recharge areas, hydrologic function would be maintained.	Footnote removed based on added text noted above in subsection 4.2 and 4.3.
4.3 Scenario Analysis Natural Hazards Page 38	Context at top of page: Focused on flood modelling as measured by peak flows. Percent change is based on an average from both locations for the regional storm only (as the worst-case scenario).	Focused on flood modelling as measured by peak flows. **Percent change is based on the Regional Storm (i.e. Hurricane Hazel) at two points in the watershed. The Regional Storm for TRCA's jurisdiction is based on a historical extreme storm of record, Hurricane Hazel. Design storms are based on statistical analysis of rainfall over a period of record. Hurricane Hazel is a 12-hour event**

<table>
<tr><th>Section / Page Number</th><th colspan="4">Original Text</th><th colspan="4">Revised Text</th></tr>
<tr><td></td><td colspan="4"></td><td colspan="4">with 212 mm of rainfall, which assumes completely saturated soils.</td></tr>
<tr><td rowspan="3">4.3
Scenario Analysis
Natural Hazards
Page 38</td><td>Current Conditions</td><td>Scenario 1</td><td>Scenario 2</td><td>Scenario 3</td><td>Current Conditions</td><td>Scenario 1</td><td>Scenario 2</td><td>Scenario 3</td></tr>
<tr><td>% change -</td><td>= -2%</td><td>= 0%</td><td>-77%</td><td>% change at Taunton Rd</td><td>+2.4%</td><td>+1.9%</td><td>-112.9%</td></tr>
<tr><td colspan="4"></td><td>% change at Shoal Point Road</td><td>-6.4%</td><td>+1.5%</td><td>-40.9%</td></tr>
<tr><td>4.3
Scenario Analysis
Natural Hazards
Page 38</td><td colspan="4">Footnote 22
The flood modelling completed as part of scenario analysis did not factor in potential mitigation measures (e.g. modern stormwater infrastructure).</td><td colspan="4">All existing stormwater management facilities were removed from the model to account for the system failing or being at capacity during a Regional storm event.</td></tr>
<tr><td>4.3
Scenario Analysis
Natural Hazards
Page 38</td><td colspan="4">Revision is new text.</td><td colspan="4">New footnote:
The 5-year storm event uses a 60.07 mm rainfall event over a 24-hour period, which assumes an average (normal) soil condition.</td></tr>
<tr><td>4.3
Scenario Analysis
Summary of Implications
Page 39</td><td colspan="4">Summary of implications:
• One of the four subwatersheds shows improved aquatic conditions under scenario 2. Conversely, all four subwatersheds have fair – poor aquatic conditions under scenario 3, likely resulting in the loss of Redside Dace, a listed endangered species, within the Carruthers Creek watershed.
• The amount of natural cover and habitat quality improves under scenario 2. Under scenario 3, the amount of natural cover</td><td colspan="4">Summary of Implications:<table><tr><td colspan="2">Scenario 1</td></tr><tr><td>WRS</td><td>Aquatic conditions remain relatively poor, similar to existing conditions, and there is an increase in impervious cover across the watershed.</td></tr><tr><td>NHS</td><td>Natural cover and habitat quality remain similar to current conditions.</td></tr></table></td></tr>
</table>

<table>
<tr><th>Section / Page Number</th><th>Original Text</th><th>Revised Text</th></tr>
<tr><td></td><td>improves, while habitat quality decreases compared to scenario 2 due to the influence of surrounding urban development.
• Water quality is currently impaired in the watershed for parameters like chloride, phosphorus, TSS and E. coli. Without improvements to land use practices, salt and stormwater management, water quality is likely to continue to deteriorate with increased urbanization (scenario 3).
• There are existing flooding issues in the watershed, which will significantly increase under scenario 3 without the implementation of considerable mitigation measures. The hydrologic assessment shows a reduction in peak flows associated with the recommended NHS for smaller design storms (i.e. 2-year storm).
These hypothetical future scenarios are illustrative of potential watershed conditions.
In addition to the summary of implications, it is important to recognize the following:
• Protecting, enhancing and restoring the recommended NHS provides vital watershed benefits as illustrated by Scenario 2 and is consistent with targets as identified in Table 2.
• Limiting impervious cover in any potential future growth areas, or through redevelopments, provides significant benefits to aquatic biodiversity. Federal guidance recommends urbanizing watersheds maintain less than 10% impervious land cover, while already degraded urban systems should not exceed a second threshold of 25 to 30%.</td><td>
<table>
<tr><td>Water Quality</td><td>Slight increases in both total suspended solids and total phosphorus.</td></tr>
<tr><td>Natural Hazards</td><td>Peak flows do not significantly change from current conditions (i.e. increases and decreases at Taunton and Shoal Point Roads under the Regional and 5-year storm events).</td></tr>
<tr><td colspan="2">Scenario 2</td></tr>
<tr><td>WRS</td><td>One of the four subwatersheds shows improved aquatic conditions.</td></tr>
<tr><td>NHS</td><td>Natural cover increases and habitat quality improves.</td></tr>
<tr><td>Water Quality</td><td>Total phosphorus and total suspended solids decrease.</td></tr>
<tr><td>Natural Hazards</td><td>Peak flows decrease slightly at Taunton and Shoal Point Roads under the Regional and 5-year storm events.</td></tr>
<tr><td colspan="2">Scenario 3</td></tr>
<tr><td>WRS</td><td>All four subwatershed have fair-poor aquatic conditions, likely resulting in the loss of Redside Dace, a listed endangered species.</td></tr>
<tr><td>NHS</td><td>Natural cover increases, but habitat quality does not improve by as much as scenario 2.</td></tr>
<tr><td>Water Quality</td><td>Total suspended solids increase, total phosphorus decreases.</td></tr>
<tr><td>Natural Hazards</td><td>Peak flows significantly increase at Taunton and Shoal Point Roads under the Regional</td></tr>
</table>
</td></tr>
</table>

Section / Page Number	Original Text	Revised Text
	Scenario 1 shows impervious cover reaching this 30% threshold with only a marginal improvement to 29% under Scenario 2. See Figure 9 in Section 7 for more information. The management framework developed as part of this watershed plan contains recommendations to improve watershed conditions regardless of potential future land use decisions. The management framework is designed to account for potential future growth, redevelopment and emphasize the importance of protecting, enhancing and restoring both the WRS and NHS.	**and 5-year storms; more so for the former.** **What does this mean?** **These results demonstrate the importance of ensuring that land use and infrastructure planning decisions are made to minimize and mitigate impacts to the watershed regardless of potential future land uses or their configurations. The management framework in Section 5 outlines the goals, objectives, indicators, and management recommendations necessary to ensure the long-term health and sustainability of the watershed.** **The results of this scenario analysis emphasize the importance of protecting, enhancing, and restoring the WRS (Subsection 5.2) and the NHS (Subsection 5.3).** **In addition to the summary of implications, it is important to recognize the following:** • **Limiting impervious cover in any potential future growth areas, or through redevelopments, provides significant benefits to aquatic biodiversity. Federal guidance recommends urbanizing watersheds maintain less than 10% impervious land cover, while already degraded urban systems should not exceed a second threshold of 25 to 30%. Scenario 1 shows impervious cover reaching this 30% threshold with only a marginal improvement to 29% under Scenario 2. See Figure 9 in Section 7 for more information.**

Section / Page Number	Original Text	Revised Text
		• **Increasing natural cover and improving habitat quality has noticeable benefits for the watershed (e.g. improvements to aquatic conditions and slight reductions of peak flows).** • **Ecological restoration and improvements to land use practices (e.g. increased use of green infrastructure and improved stormwater management) could address existing water quality issues.** • **The existing flooding and erosion issues can be mitigated through improved land uses (e.g. green infrastructure) and infrastructure (e.g. stormwater management) as outlined in the management recommendations of Subsection 5.1. In the event of future development in the headwaters of Carruthers Creek, it will be vital to develop mitigation strategies to limit the impacts of further urbanization by implementing the management recommendations outlined in Subsection 5.4.** **The management framework is designed to address existing issues and the implications of these scenarios by accounting for new developments, redevelopments, and prioritizing the importance of protecting, enhancing, and restoring both the WRS and NHS.**
5.1 Land Use and Infrastructure Goal Page 43	1.1.1 Lower-tier municipalities, in collaboration with the Region of Durham and TRCA, to adopt green development policies, or standards, and require new developments, and re-developments, to utilize low impact	1.1.1 Lower-tier municipalities, in collaboration with the Region of Durham and TRCA, to adopt green development policies, or standards, and require new developments, and redevelopments, to utilize low impact

Section / Page Number	Original Text	Revised Text
	development and green infrastructure techniques to limit the impacts of impervious cover. The following should apply to any municipal policies, or standards, in particular within ESGRAs, as identified on map 1b: a. new developments should minimize impervious cover and strive to achieve 90th percentile volume control of annual rainfall b. redevelopments should minimize impervious cover and strive to achieve 75th percentile volume control of annual rainfall	development and green infrastructure techniques to limit the impacts of impervious cover. The following **shall** apply to any municipal policies, or standards, in particular within ESGRAs, as identified on map 1b: a. new developments **shall** minimize impervious cover and strive to achieve 90th percentile volume control of annual rainfall b. redevelopments **shall** minimize impervious cover and strive to achieve 75th percentile volume control of annual rainfall
5.1 Land Use and Infrastructure Goal Pages 43 – 44	1.1.3 If it is determined that a Settlement Area Boundary Expansion is required in the headwaters of Carruthers Creek, in accordance with Growth Plan policies, the Region of Durham, in collaboration with lower-tier municipalities and TRCA, to develop a Terms of Reference outlining requirements for further studies in support of subwatershed planning that includes, but is not limited to: a. a hydraulic assessment b. how natural hazards will be assessed and mitigated (i.e. the risk of flooding will not increase) c. how the Natural Heritage System and Water Resource System will be protected, enhanced and restored d. how water quality and quantity will be protected.	1.1.3 If it is determined that a Settlement Area Boundary Expansion is required in the headwaters of Carruthers Creek, the Region of Durham, in collaboration with the lower-tier municipalities and TRCA, **will identify, based on consensus between the identified parties, the subsequent planning processes and further studies and assessments, that would be required to implement any such expansion. These requirements should be reflected as policies within the Regional Official Plan and include the requirement for the preparation of a secondary plan and a subwatershed plan (or equivalent), which would be supported by, at a minimum, the following studies, assessments, and further considerations**: a. a hydraulic assessment b. how natural hazards will be assessed and mitigated (i.e. the risk of flooding **and erosion** will not increase) c. how the Natural Heritage System and Water Resource System will be protected, enhanced, and restored

Section / Page Number	Original Text	Revised Text
		d. how water quality and quantity will be protected. e. **how flood mitigation solutions will be funded, including identification of the responsible parties for providing the funding. This includes the cost of any necessary studies, engineering design, and actual construction/maintenance of flood mitigation works.**
5.1 Land Use and Infrastructure Goal Page 46	1.3.5 TRCA to complete comprehensive floodplain mapping based on new models and best available information to inform land use and infrastructure decisions.	1.3.5 TRCA **will continue** to complete comprehensive flood plain mapping based on **routinely updated hydraulic** models and **updated land use information to inform municipal planning decisions. Regulatory flood plain mapping is updated based on approved land uses.**
5.2 Water Resource System Goal Page 47	2.1.1 The Region of Durham and lower-tier municipalities, in collaboration with TRCA, to ensure the protection of the Water Resource System (map 1A and B) and its functions, by: a. updating Official Plans and zoning bylaws to adequately protect the Water Resource System . . .	2.1.1 The Region of Durham and lower-tier municipalities, in collaboration with TRCA, to ensure the protection of the Water Resource System (map 1A and B) and its functions, by: a. updating Official Plans and zoning bylaws **to protect** the Water Resource System . . .
5.2 Water Resource System Goal Page 48	2.1.4 If it is determined that a Settlement Area Boundary Expansion is required in the headwaters of Carruthers Creek, in accordance with Growth Plan policies, the City of Pickering, in collaboration with the Region of Durham, Town of Ajax and TRCA, as part of secondary planning to demonstrate through a subwatershed plan (or equivalent) that: a. key hydrologic features will be protected	2.1.4 If it is determined that a Settlement Area Boundary Expansion is required in the headwaters of Carruthers Creek, the City of Pickering, in collaboration with the Region of Durham, Town of Ajax and TRCA, **prior to approvals of a secondary plan** to demonstrate through a subwatershed plan (or equivalent) that: a. key hydrologic features will be protected **and hydrologic functions maintained**

Section / Page Number	Original Text	Revised Text
	b. where avoidance of key hydrologic areas is not possible, appropriate mitigation measures are to be implemented to maintain downstream hydrologic function, and c. there will be no negative or adverse downstream effects, such as increased flooding, erosion, or deteriorated water quality.	*b. no change, except adding an 's' to function* c. there will be no negative or adverse downstream effects, such as increased flooding, erosion, or deteriorated water quality **through a hydraulic analysis (to quantify and map depth and extent of impacts) and other relevant modelling**.
5.3 Natural Heritage System Goal Page 49	The exact configuration and size of the NHS could fluctuate due to other factors (e.g. construction of infrastructure), assuming the analysis is comparable to the one that resulted in the proposed enhanced NHS recommended by TRCA.	**Refinements to the recommended NHS may be considered assuming the scientific analysis is consistent with the goals and objectives of the CCWP.**
5.3 Natural Heritage System Goal Page 50	3.1.1 The Region of Durham and lower-tier municipalities, in collaboration with TRCA, to ensure the protection, enhancement and restoration of a Natural Heritage System consistent with the goals and objectives of this watershed plan (map 2 for recommended NHS) by: a. updating Official Plan policies and associated zoning bylaws to protect a municipally adopted enhanced Natural Heritage System b. assessing existing standards and guidelines for land use and infrastructure development to ensure they reflect current provincial policy direction to maintain, restore or enhance the municipally adopted Natural Heritage System c. avoid infrastructure development (i.e. buildings and structures) and minimize infrastructure linear feature crossings, in	3.1.1 **The Region of Durham, as part of its Municipal Comprehensive Review, to ensure the protection, enhancement, and restoration of a Natural Heritage System consistent with the goals and objectives of this watershed plan (map 2 for recommended NHS) by:** **a. including existing natural cover areas identified in map 2 in the Regional Official Plan** **b. providing direction to lower-tier municipalities to include policies in their Official Plans to protect, enhance and restore existing natural cover areas as identified in map 2** **c. recognizing the potential natural cover areas identified in map 2 in the Regional Official Plan and providing direction to lower-tier municipalities to include any relevant policies in their Official Plans to enhance and restore potential natural cover areas**

Section / Page Number	Original Text	Revised Text
	a municipally adopted enhanced Natural Heritage System d. adopting municipal policies for ecosystem compensation, in accordance with TRCA's *Guideline for Ecosystem Compensation*, where development in a municipally adopted enhanced Natural Heritage System is unavoidable e. applying a minimum 30 metre vegetation protection zone along features at the boundary of a municipally adopted enhanced Natural Heritage System to protect ecological function f. requiring development and redevelopments be designed and approved to prevent encroachment into a municipally adopted enhanced Natural Heritage System.	**d. avoiding infrastructure development (i.e. buildings and structures) and minimizing infrastructure linear crossings, in a municipally designated enhanced Natural Heritage System** **e. providing direction to lower-tier municipalities on the establishment of minimum vegetation protection zones along natural heritage features, with the ability of the minimum vegetation protection zone to be confirmed through an appropriate environmental study** **3.1.2** **Lower-tier municipalities, in collaboration with TRCA, to ensure the protection, enhancement and restoration of a Natural Heritage System consistent with the goals and objectives of this watershed plan (map 2), including the target of achieving 36% natural cover across the watershed, by:** a. **designating in their Official Plans, at a minimum, existing natural cover as identified in map 2** b. **including policies in their Official Plans to identify enhancement and restoration opportunities for potential natural cover areas as identified in map 2** c. *same as b in original text, except adopted is replaced with designated* d. *same as c in original text, except adopted is replaced with designated* e. adopting municipal policies for ecosystem compensation **that meet or exceed** TRCA's *Guideline for Ecosystem Compensation,* where development in a municipally **designated** enhanced Natural Heritage System is unavoidable

Section / Page Number	Original Text	Revised Text
		f. applying a minimum vegetation protection zone along natural heritage features at the boundary of a municipally designated enhanced Natural Heritage System. A minimum 30 metre vegetation protection zone is recommended, unless otherwise determined through an appropriate environmental study g. *same as f in original text, except adopted is replaced with designated, and redevelopments is replaced with site alterations* *Remaining 3.1 management recommendations in subsection 5.3 would be numbered sequentially so that the previous 3.1.2 becomes 3.1.3 and so on.*
5.3 Natural Heritage System Goal Page 51	3.1.5 TRCA, in collaboration with the Region of Durham and lower-tier municipalities, to minimize impacts to the municipally adopted Natural Heritage System from any active recreation and human activity by: a. ensuring proper trail management and signage b. providing education and outreach on the importance of the municipally adopted Natural Heritage System c. promoting community stewardship to maintain and monitor the municipally adopted Natural Heritage System for improper trail usage (e.g. off-trail compaction and erosion), illegal dumping and invasive species, while encouraging community restoration programs (e.g. tree plantings).	**3.1.6** TRCA, in collaboration with the Region of Durham and lower-tier municipalities, to minimize impacts to the municipally **designated** Natural Heritage System from any active recreation and human activity by: a. ensuring proper trail management and signage b. providing education and outreach on the importance of the municipally **designated** Natural Heritage System c. promoting community stewardship to maintain and monitor the municipally **designated** Natural Heritage System for improper trail usage (e.g. off-trail compaction and erosion), illegal dumping and invasive species, while encouraging community restoration programs (e.g. tree plantings).

Section / Page Number	Original Text	Revised Text
5.3 Natural Heritage System Goal Page 51	3.1.6 Wetland water balance studies that demonstrate how the hydrological function of the wetland should be protected will be undertaken by the landowner . . .	**3.1.7** Wetland water balance studies that demonstrate how the hydrological function of the wetland **is to** be protected will be undertaken by the landowner . . .
5.4 Carruthers Creek Headwaters Management Pages 54 – 55	Management recommendations 1.1.3, 2.1.4, and 3.1.7 have been updated as noted above.	
6. Monitoring and Evaluation Page 56	Revision is new text.	**If development occurs in the headwaters of Carruthers Creek, it may be necessary to add additional monitoring stations.**
7. Maps Page 64	Revision is new text.	Map 2, additional note: **Refinements to the recommended NHS may be considered assuming the scientific analysis is consistent with the goals and objectives of the CCWP.**

Appendix A

Email Campaign Submission to Durham Regional Chair

(Generic text from all email submissions provided below)

Please respect the findings from the TRCA's report on Carruthers Creek and say no to development in headwaters.

The TRCA has completed the Carruthers Watershed Plan. It has now been circulated for public comment. The report shows unequivocally that this watershed is stressed. There is already a serious problem with flooding and erosion. The report indicates that urbanizing the Carruthers Headwaters will increase flooding hazards by a staggering 77 per cent!

Durham Council has already identified flooding as the number one threat from climate change. The costs to local governments and homeowners will be very large. These lands are also prime agricultural lands which are very important to Durham's largest industry.

The TRCA Report makes it very clear that under no circumstances should the Carruthers Headwaters be urbanized. The cost is too great.

Response Provided by Region of Durham

Thank you for your email. Your comments have been added to the Region's file and sent to staff at the Toronto and Region Conservation Authority (TRCA) for consideration. TRCA entered into a service agreement with the Region to complete the watershed plan.

As you may be aware, a Draft of the Carruthers Creek Watershed Plan Update was released on March 13, 2020 for a 90-day public review and comment period. Following the outbreak of the COVID-19 pandemic, the public review and comment period was placed on hold. Public consultation, including a public open house, will resume once the current state of emergency has been lifted. In the meantime, you may continue to submit comments on the Draft Carruthers Creek Watershed Plan through the Toronto and Region Conservation Authority project website.

The Draft Carruthers Creek Watershed Plan Update assesses the current health of the watershed. It also utilizes scenario modelling to project what the future health of the watershed may be. One of these scenarios (scenario 3) models the likely implications associated with the potential for urban development within the headwaters without mitigation measures. Currently, the lands within the headwaters of Carruthers Creek are not designated as part of the settlement area of the City of Pickering or within the Region of Durham's urban area boundary. At this time there has been no decision to develop the headwaters of Carruthers Creek.

To mitigate the increased risk of downstream flooding, as well as other adverse effects associated with potential urban development within the headwaters, Subsection 5.4 of the Draft Carruthers Creek Watershed Plan outlines a series of management recommendations. The management recommendations of Subsection 5.4 also address the planning processes and further studies that would be required before a decision can be made about development in the headwaters. These management recommendations, along with the broader management framework, would be used to protect, enhance, and restore the Carruthers Creek Watershed, including the implementation of appropriate flood mitigation measures.

It is important to note that watershed plans are not land use plans, nor do they constitute a land use planning decision. However, as required by Provincial Plans, the data, scientific analysis, modelling, scenario evaluation and management recommendations generated through a watershed plan process would be used by municipalities to inform future land use planning decisions.

Should you have any further questions about the content, or the recommendations contained in the Carruthers Creek Watershed Plan, I encourage you to email carruthers@trca.ca and a member of the TRCA project team will respond.

APPENDIX B

The North East Pickering Landowners Group (NEPLG) letter also contained comments specific to many of the Scenario Analysis Technical Reports completed as part of the watershed planning process. **Table 6** provides a general overview of those comments grouped by theme and relevant responses.

Table 6 - NEPLG Comments on Technical Reports

Comments	Changes to CCWP (If applicable) / Response to Comments
Modifications to Technical Reports	
Key comments include: • Suggest adding more technical details about methodologies, specifically for the Terrestrial Impact Assessment. • It is not practical to require the development of a Region-wide stormwater management plan for matters related to one watershed. We recognize this recommendation in the technical report was not carried forward to the watershed plan. Therefore, suggest deleting it from the Technical Report. • The hydrologic modelling did not achieve a successful model calibration with the latest stream gauge information. The timing and process for TRCA to complete the hydrologic model calibration should be discussed in the Technical Reports. The hydrology models should undertake a fulsome parameter and calibration/validation exercise, including using more recent data before further use in determining flooding impacts and mitigation approaches. This should be discussed in the documents.	The Technical Reports developed as part of the CCWP were all peer-reviewed. As noted in Regional Council Report #2020-P-15, TRCA and Regional planning staff are confident the draft Watershed Plan is thorough, sound, and defensible. As noted in the CCWP (Section 5), the management recommendations in the watershed plan are to be considered the final source for goals, objectives, indicators, and management recommendations. As noted in the CCWP, the preparation of a hydraulic analysis and demonstration that new developments will not negatively impact natural hazard areas are included as management recommendations. Additionally, a memo provided to SCS Consulting in January 2021 on the review of the hydrology model has been added to the Reports and Resources library on the CCWP project webpage.
Scenario 2 and 3 Assumptions	
Key comments include: • Scenario 2 is not realistic as there is no policy mechanism for existing farmland to be enhanced natural cover. • Scenario 3 is too simplistic without mitigation and could include assumptions on type of land uses,	The scoping of the scenarios for this watershed-scale planning exercise were developed by TRCA in collaboration with its municipal partners. Under Goal 1, objective 4 recognizes the need to work with the agricultural community on rural land stewardship. In the event that urbanization does not

Comments	Changes to CCWP (If applicable) / Response to Comments
canopy cover, green infrastructure, and stormwater management.	occur within the headwaters, TRCA would use the enhanced NHS to identify opportunities with rural land owners (e.g. incentive programs, grants, etc.). The extent and detailed land uses associated with a Settlement Area Boundary Expansion have not been determined. It is therefore difficult to assume the appropriate level of mitigation measures, which would be determined during the appropriate municipal planning stage (e.g. secondary planning). Scenario 3 was intended to give an overview of potential impacts based on typical urbanization patterns, and identify the appropriate studies, assessments, and considerations to include in any potential future secondary plan/subwatershed study. Subsection 5.4 of the CCWP identifies the studies that would be required in the event of a Settlement Area Boundary Expansion in the headwaters of Carruthers Creek. It is more appropriate to model different mitigation strategies at the appropriate planning stages when detailed land uses and configurations are known.
Additional Development Scenario	
Key comments include: • Recommends including a development scenario that includes practices for ecological and hydrological mitigation. • The minimum required stormwater management water quality treatment criteria for new development should be modelled. This is 80% TSS removal.	See response above.
Findings of Technical Reports	
Key comments include: • The impervious cover target needs to recognize impervious cover mitigation measures such as low impact developments. If Scheuler (1994) is going to be used to set system responses to impervious cover, the results should be contextualized with	The headwaters of Carruthers Creek are not currently within the urban boundary. The Region of Durham will decide on future growth based on the results of its Municipal Comprehensive Review. Additional assessment of potential mitigation strategies for future development would occur at the

Comments	Changes to CCWP (If applicable) / Response to Comments
its commentary on the use of stormwater controls. • The scenarios do not consider the impacts of tile drains on headwater drainage features and a future development scenario presents an opportunity to improve the hydrology of these features. • Disagree with the finding that future development will negatively impact fish habitat, as it is more likely that instream habitat conditions will improve in a future development scenario (e.g. naturalized stream corridors, stormwater controls) and that with these improvements fish diversity and abundance will be enhanced. • While low impact development techniques may not be able to erase all impacts of land development, they can certainly reduce the impacts, mitigating the effects of impervious cover. • The TRCA Expanded Groundwater Flow Model is a regional-scale model that was not refined, updated or re-calibrated for Carruthers Creek. The recharge boundary condition as applied in the land use scenarios was interpolated from previous simulations rather than from an updated hydrologic simulation. It is inappropriate to apply preliminary or unvetted tools to make management decisions. • The applied recharge in the future build-out scenario is representative of urban recharge from a large portion of Toronto, Durham, York, and Peel rather than what rates could be achievable with a modern stormwater system in Carruthers Creek.	appropriate planning stage as outlined in subsection 5.4 of the draft CCWP. While low impact development techniques can moderate some severity of impacts associated with impervious cover, they have yet to be demonstrated at a large enough scale to prevent aquatic tipping points from being exceeded. As noted elsewhere, in the event of future development additional studies would provide an opportunity to demonstrate how a future development scenario could improve the hydrology of headwater drainage features. There is a great deal of scientific evidence to suggest that naturalized stream corridors and improved stormwater controls do not result in the level of improvements to fish and aquatic habitat being asserted. Fish and aquatic habitat quality are governed by flow regime which is determined by runoff coefficients and the timing, magnitude, and durations of stormwater flows. Groundwater discharge also needs to be considered. Mitigation measures and habitat enhancements may improve some conditions initially, but the necessity to increase impervious cover with development shifts the system to a degraded state in the long-term. The decision was made to perform a preliminary groundwater modelling analysis that leveraged existing efforts including a peer-reviewed Tier 3 Source Water Protection numerical model and a comprehensive provincial database containing insights from a variety of groundwater investigations going back decades. This combined with some simple assumptions, such as recharge is land use dependent, provided insight of great value into the hydrological nature of Carruthers Creek.

www.trca.ca

Toronto and Region Conservation Authority

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The Regional Municipality of Durham Report

To:	Planning and Economic Development Committee
From:	Commissioner of Planning and Economic Development
Report:	#2021-P-17
Date:	June 1, 2021

Subject:

Planning Application Processing Fees and Charges, File: F32-01

Recommendation:

That the Planning and Economic Development Committee recommends to Regional Council:

A) That the Region's Planning Fees and Charges By-law be updated in accordance with the proposed fee schedule within Attachment 1 to this report;

B) That the Regional Solicitor be authorized to prepare the necessary by-law to incorporate amendments to the Planning Application Fee By-law;

C) That the new Planning Application Fee By-law come into effect on July 1, 2021; and

D) That a copy of Commissioner's Report #2021-P-17 be forwarded to the Area Municipalities, the Conservation Authorities, the Building Industry and Land Development Association (BILD), and The Durham Region Homebuilders' Association, for their information.

Report:

1. Purpose

1.1 Section 69 of the *Planning Act* enables the Council of a municipality to establish a tariff of fees by-law for the processing of applications made in respect of planning matters. The tariff is designed to meet the anticipated costs to process each type

of application.

1.2 The Region's current Planning Application Fee By-law contains many different types of planning fees (refer to Attachment 1) and is reviewed every other year to ensure that the fees remain appropriate and reasonable. Although a fee review was scheduled for 2020, it was deferred due to the COVID-19 pandemic.

1.3 The purpose of this report is to provide an overview of the 2021 fee review and to recommend certain changes to the Fee By-law to ensure that adequate fees are being charged to review planning applications.

2. Proposed Fee By-law Amendments

2.1 This review examined the anticipated cost to process each type of planning application and compared the Region's fees with other Regional municipalities in the Greater Golden Horseshoe (GGH) and the Region's eight area municipalities.

2.2 The analysis reveals that modest changes to the existing Fee By-law are warranted to better recover some of the costs associated with application processing. The majority of the Region's fees are proposed to remain unchanged. A description of the recommended changes is provided below.

Area Municipal Official Plan Amendment (AMOPA) Fees

2.3 The current Fee By-law includes a fee of $2,500 for the Region's review of an exempt[1] AMOPA application, and $4,500 for the review of a non-exempt AMOPA application. AMOPA applications are becoming increasingly complex due to the increase of applications within infill and regeneration areas.

2.4 To account for inflation, increased processing effort, and to be more in-line with other municipalities in the Greater Golden Horseshoe (GGH), it is recommended that the fee to review an exempt AMOPA application be increased to $3,500, and that the fee to review a non-exempt AMOPA application be increased to $5,000.

[1] An exempt application means one which is exempt from Regional approval.

Plan of Subdivision/Condominium Application Fees

2.5 The current Fee By-law includes a fee of $4,000 for the Region's review of a delegated Plan of Subdivision application, $5,500 for the review of a non-delegated[2] Plan of Subdivision application, and $1,125 for the final approval of a non-delegated Plan of Subdivision application.

2.6 To account for inflation and to be more in-line with comparable municipalities, it is recommended that the fee for a delegated Plan of Subdivision application be increased to $5,000, the fee for a non-delegated Plan of Subdivision application be increased to $6,000, and the fee for the final approval of a non-delegated Plan of Subdivision application be increased to $1,500.

Major Revisions to Plan of Subdivision applications

2.7 The Regional Planning Division currently does not charge a fee for any major applicant-initiated redline revisions to a Draft Plan of Subdivision or Condominium after draft approval for non-delegated applications. Significant changes to applications require processing effort similar to new applications. It is recommended that a fee of $1,500 be established, which is generally consistent with the fee to review amended plans in the delegated municipalities.

Multiple-phased Plan of Subdivision applications

2.8 There is currently no fee to review subsequent phases of a multiple phased draft Plans of Subdivision in both delegated and non-delegated municipalities when a draft approval does not apply to an entire site. It is recommended that a new fee of $3,000 per phase be implemented. The new fee reflects the costs of reviewing multiple phased draft approvals of Plan of Subdivision applications, which tend to be more complex than those applications which aren't phased and require multiple circulations to internal commenting agencies.

[2] A "non-delegated" Plan of Subdivision/Condominium is one that is located in one of the three northern municipalities in Durham Region (Brock, Scugog, or Uxbridge).

Fee Standardization of Plan of Condominium applications

2.9 Currently, the Region charges five different fees for reviewing the different types of Plan of Condominium applications from delegated municipalities. It is recommended that the fee be standardized at $2,000 with the exception of Common Element Plans of Condominium[3] applications, which would remain at $1,000. This change reflects the similar time and processing effort required to review these applications, and to simplify the fee schedule.

Consent applications

2.10 The Region currently charges a fee of $1,000 to process a consent application and a fee of $750 to stamp a deed, and finalize documents for applications that create new lots, and for stamping leases, mortgages and deeds for realigning lot lines. The consent application fee has not changed since 2012 and the stamping fee has not changed since 2014. To account for inflation, it is recommended that the fee to process a consent application be increased to $1,350 and the fee to stamp a deed and finalize documents related to a consent application be increased to $1,000.

Aggregate Site Plans

2.11 Currently the Region does not charge a fee for the review of Site Plan applications and/or amendments made under the Aggregate Resources Act (ARA) where the Ministry of Natural Resources and Forestry (MNRF) is the approval authority. It is recommended that a fee of $1,000 for a minor review where the Region does not require the review of technical studies, and a fee of $5,000 for a major review where the Region would be required to review technical studies and/or consult with external agencies be implemented. The fee reflects the complexity to review and respond to these applications.

Peer Reviews

2.4 Currently, the Region includes a fee of 10 per cent of the costs to peer review technical studies submitted in support of planning applications. It is

[3] A “Common Element Plans of Condominium” has no units and only has elements such as roads, gardens and parking. The owners of freehold parcels of land are tied together with a common interest in the common element condominium and are able to make use of, and are jointly responsible to maintain and repair, the common elements.

recommended that a fee of $500 per peer review round[4] replace the current fee. The revised fee is more representative of the Regional costs associated with the administration of any such review.

Minister's Zoning Order (MZO) Amendment Application Fees

2.5 Currently, a fee of $1,000 is required for the review of an MZO Amendment application. The fee has not increased since its introduction in 2016. To account for the increasingly complex nature of these applications it is recommended that the fee be increased to $1,500 for a minor application and to $5,000 for a major application[5].

2.6 By way of clarification, the above-noted fee only applies to MZO amendments, not brand new MZO requests.

LPAT Appeal Processing Fee

2.7 The Region currently charges a fee of $250 to prepare a record for all applications appealed to the Local Planning Appeal Tribunal (LPAT). The fee has not changed since before 2011 and does not adequately capture the Regional cost associated with this component of the appeal process. Accordingly, it is recommended that the fee be increased to $500.

Renewable Energy Approval applications

2.8 The current Fee By-law includes a fee of $1,000 for the review of renewable energy approval applications. This type of application is no longer administered by the provincial government. Accordingly, it is recommended that this fee in Section 2.1 (n) of the current Fee By-law (25-2018) be removed.

3. Housekeeping Matters

3.1 Section 2.5 of the current Fees By-law states "All fees are to be paid by certified cheque or money order made payable to the Regional Municipality of Durham." It is recommended that e-transfer be added as an acceptable method of payment.

3.2 Section 4.18 of Council's Delegation of Authority By-law (By-law 29-2020)

[4] A peer review round occurs when a technical study prepared by a company selected by an applicant is peer reviewed by a company from the Region's peer review roster.

[5] A minor review fee would involve an application that conforms to the Regional Official Plan (ROP) whereas a major review fee would involve an application that does not conform to the ROP.

provides the Commissioner of Planning and Economic Development with the authority to refund all or part of a planning application fee to facilitate the withdrawal of a Regional planning application where planning merits cannot be adequately justified, or to correct an error in the original fee calculation.

4. Consultation

4.1 Planning Division staff consulted with representatives from the Building Industry and Land Development Association (BILD) to discuss the proposed changes to the Fee By-law. The proposed fees and charges were also circulated to the Durham Homebuilders' Association (DRHBA). BILD and DRHBA did not express any concerns with the proposed changes.

5. Previous Reports and Decisions

5.1 Report #2018-COW-122 provides details regarding the Region's last review of the Planning Fees and Charges By-law. Regional Council adopted By-law 25-2018 on June 13, 2018 and the by-law came into effect on July 1, 2018.

6. Relationship to Strategic Plan

6.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:

a. Service Excellence – To provide exceptional value to Durham's taxpayers through responsive, effective and fiscally sustainable service delivery.

7. Conclusion

7.1 The 2021 review of the Region's Planning Application Fee By-law has concluded that some changes are required to ensure that the appropriate fees are charged to better reflect the anticipated costs to review the applications. The proposed changes are comparable with fees charged by other GGH Regional municipalities. Staff have consulted with BILD on the proposed changes and will continue to liaise with BILD on future application fee reviews.

7.2 It is recommended that the Regional Solicitor be authorized to prepare the necessary by-law to incorporate the recommended changes and that the new Fee By-law come into effect on July 1, 2021.

8. Attachments

Attachment #1: Region of Durham Planning Application Fee Schedule – Summary of Fee Changes

Respectfully submitted,

Original signed by

Brian Bridgeman, MCIP, RPP
Commissioner of Planning and
Economic Development

Recommended for Presentation to Committee

Original signed by

Elaine C. Baxter-Trahair
Chief Administrative Officer

Attachment #1: Summary of Fee Changes - 2021

Area Municipal Official Plan Amendment (AMOPA)	
Exempt Review Fee	$3,500
Non-exempt Review Fee	$5,000
Plan of Subdivision and Condominium	
Delegated Municipalities (Ajax, Clarington, Oshawa, Pickering, Whitby)	
Subdivision Review Fee	$5,000
Subdivision Review Fee – additional phases	$3,000
Condominium Conversion Review Fee	$2,000
Phased Condominium Review Fee	$2,000
Vacant Lot Condominium Review Fee	$2,000
Non-delegated Municipalities (Brock, Scugog, Uxbridge)	
Review Fee	$6,000
Final Approval Fee	$1,500
Major Revision	$1,500
Review Fee – subdivision – additional phases	$3,000
Consent (severance, lot line adjustment, etc.)	
Application Fee	$1,350
Stamping Fee	$1,000
Site Plan	
Minor Review Fee for applications made under the Aggregate Resources Act	$1,000
Major Review Fee for applications made under the Aggregate Resources Act	$5,000
Other Fees	
Costs to administer Peer Review study (per peer review round)	$500
Minor Minister's Zoning Order Amendment application review	$1,500
Major Minister's Zoning Order Amendment application review	$5,000
LPAT Appeal processing fee	$500

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The Regional Municipality of Durham Report

To:	Planning and Economic Development Committee
From:	Commissioner of Planning and Economic Development
Report:	#2021-EDT-4
Date:	June 1, 2021

Subject:

Local Food in Durham Region: Durham Farm Fresh Marketing Association 2021 Workplan and Ontario Local Food Week

Recommendation:

That the Planning and Economic Development Committee recommends:

That this report be received for information.

Report:

1. Purpose

1.1 The purpose of this report is to:

a. provide an update on the activities of the Durham Farm Fresh Marketing Association (DFFMA); provide their 2021 workplan to Committee and Council (Attachment #1), and notify Committee that a DFFMA representative will be appearing as a delegation before the Planning and Economic Development Committee at its meeting on June 1, 2021 to provide an annual update;
b. provide an update on local food related economic development activities undertaken by the Economic Development and Tourism Division to support the growth of the agri-food sector; and
c. Inform the Planning and Economic Development Committee that the first week of June each year is Ontario Local Food Week.

2. Background

2.1 The Agriculture and Rural Economic Development section of the Economic Development and Tourism Division works with several local agricultural organizations, including the DFFMA, to implement programming in support of the agricultural and rural economy in Durham Region.

2.2 The Region contributes $10,000 annually to the DFFMA as core operational funding, through the Division's annual Business Plan and Budget.

2.3 The DFFMA is a largely volunteer-led and membership-based organization, with one part-time coordinator, that has been promoting the production and consumption of local food in Durham Region for over 25 years.

2.4 Established in 1991, the DFFMA has been a leader in the producer-led local food marketing movement in Ontario. Members of Regional Council, businesses, and residents will be familiar with the DFFMA branding; including: the annual 'Buy Fresh, Buy Local' map; directional road signs; and the DFFMA website promoting its members.

2.5 The association has 43 full members, 6 associate members and 7 supporting members. Together, the DFFMA members offer local fruit, vegetables, meat and value-added products directly to the consumer. DFFMA also plays an important role in educating the public about farming and local food sources.

3. Previous Reports and Decisions

3.1 The DFFMA is as a key partner in implementing the Local Food Business Retention and Expansion (BR&E) Project Action Plan and providing overall support for the agri-food sector. The Local Food BR&E Action Items were reprioritized in October 2020 due to evolving industry needs, and an implementation status update was delivered to Council (#2020-EDT-8).

3.2 The DFFMA 2020 Workplan was provided to the Planning and Economic Development Committee in June 2020 (#2020-EDT-4), and DFFMA representatives attended Committee as a delegation.

4. 2020 Review and 2021 Workplan Activities

4.1 Throughout 2020, the DFFMA continued to support their members by providing resources and guidance to help them navigate the COVID-19 pandemic, including many of the workshops and resources available through

www.investdurham.ca/covidresponse. Attachment #1 includes a review of 2020 activities and the DFFMA 2021 workplan.

4.2 Some of the key activities undertaken by DFFMA in 2020 include an update to membership categories, a marketing campaign with KX-96 radio to highlight members timed with seasonal products, and the addition of a COVID-19 response page to the DFFMA website.

4.3 Over the past year, Agriculture and Rural Economic Development section staff and the DFFMA have collaborated to complete several activities that support the agri-food sector which have mitigated impacts on the sector caused by the COVID-19 pandemic:

a. All About Specialty Crops Workshop Series (#2021-EDT-3).
b. CANATRACE webinar with Ground Level Insights (March 18, 2021)
c. Mental Health Workshop with the Do More Agriculture Foundation (February 24, 2021)
d. Agriculture Succession Planning Workshop (December 17, 2020)
e. Presentation from 100km Foods at the DFFMA Annual General Meting (November 17, 2020)
f. E-Commerce – Bringing Your Business Online Workshop (August 13, 2020)
g. Health and Safety for Farms During COVID-19 Webinar (June 25, 2020)
h. Information Session for Employers of Temporary Foreign Workers (October 15, 2020 and February 18, 2021).
i. Shop Local This Holiday Season video with Durham Tourism focused on agri-tourism businesses.

4.4 In early 2020, a local food directory was launched by the Economic Development and Tourism Division (www.investdurham.ca/localfood). The directory provides a listing of farms, local food businesses, craft beverage producers and farmers' markets across the Region. It includes a specific feature for the DFFMA and provides direct links to information about what's in season and the DFFMA interactive farm map. The directory is updated and maintained by Economic Development and Tourism staff.

4.5 Looking ahead in 2021, plans are underway to host Gates Open which is scheduled to take place in October. Strict measures will be taken to ensure compliance with all COVID-19 health and safety protocols. Economic Development and Tourism staff and the DFFMA will continue to coordinate to plan and deliver a safe Gates Open event that showcases Durham Region's wide array of local food assets and farms.

5. Ontario Local Food Week

5.1 Every year, the first week of June marks Ontario Local Food Week. This is an opportunity to shop local and support the local agri-food economy.

5.2 Buying and supporting local food creates jobs and economic growth.

5.3 Here are some ways to Celebrate Ontario Local Food Week in Durham Region:

a. Purchase from DFFMA members; look for their recognizable road signs installed on Regional roads or visit www.durhamfarmfresh.ca and use the interactive farm map to find members across the region;
b. Search for local farms across the region by visiting www.investdurham.ca/localfood; and
c. Promote Ontario Local Food Week on social media, use the hashtag #LoveONTfood and tag Invest Durham and DFFMA.

6. Relationship to Strategic Plan

6.1 This report aligns with/addresses the following strategic goals and priorities in the Durham region Strategic Plan:

a. Goal 3: Economic Prosperity

- Item 3.5: Provide a supportive environment for agriculture and agri-food industries.

7. Conclusion

7.1 The DFFMA is a long-standing farm organization that continues to promote and enhance the agri-food sector in Durham Region.

7.2 Staff will continue to work closely with DFMA to assist in their sustainability plans and encouraging consumers to buy local, buy fresh.

8. Attachments

Attachment #1: Durham Farm Fresh Marketing Association – 2021 Workplan

Respectfully submitted,

Original signed by

Brian Bridgeman, MCIP, RPP
Commissioner of Planning and
Economic Development

Recommended for Presentation to Committee

Original signed by

Elaine C. Baxter-Trahair
Chief Administrative Officer

Durham Farm Fresh Marketing Association
Buy Local! Buy Fresh!

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Durham Farm Fresh Marketing Association
2021 Work plan

History

Durham Farm Fresh Marketing Association (DFFMA) members consist of farmers, producers, and chefs who care deeply about locally produced food, and have consistently delivered high-quality, fresh produce to Durham Region and beyond since 1993. DFFMA is recognized as being the most coordinated, focused and proactive leader of Regional Farm Fresh Marketing Association pack within the GTA. DFFMA is also recognized as a vital partner and platform for generating rural economic and tourism development in the region by Durham Region and the local municipalities. With the support the Region, DFFMA will continue to celebrate the success of its members and nurture an enduring connection between producers and the community.

Overall Goals

As per its mandate, DFFMA aims to improve the awareness and economics of agriculture in Durham Region by fostering more effective direct marketing via education of members, information gathering, and product promotion. DFFMA is continuously promoting Durham Region's products through educational presence at local food shows, festivals & fairs, consistent media coverage, and key partnerships in the public and private sectors.

A Review of 2020

To say the least, 2020 was an interesting year for Durham Farm Fresh. Rumblings of an impending global health crisis began just as many of our farm members were ordering seeds, planning their crops and reopening their operations for the spring. Not long after, widespread shutdowns forced the closure of businesses, caused significant travel delays for migrant workers, and induced panic, stress and financial hardship across our sector. In the months hence, the impacts of the global Covid-19 pandemic have now been felt by everyone in Durham Region in some way. Despite all of this uncertainty, farmers forged ahead. Some growers reached out to hire locally to assist with labour shortages. Many farm businesses established or improved their online presence to connect with customers and deliver essential goods. They offered curbside pick-up, home delivery, personal shoppers and more. Others modified their pick-your-own or agritourism experiences to facilitate public health measures and keep their staff and customers safe. Watching all of this unfold proved just how resourceful, resilient and nimble our industry can be, even when faced with a health crisis that has crushed other global companies and industries.

Like our members, Durham Farm Fresh as an association had to reinvent how we operate. In lieu of in-person workshops and networking events, we instead held virtual webinars in partnership with Durham Region Economic Development aimed at helping our members to evolve their businesses as

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regulations changed and changed again. With public safety top of mind, we made the difficult, but necessary decision to cancel the always popular Gates Open. We chose instead to focus on a strong on-air presence on KX96, proudly showcasing our members and their products, and reminding consumers that DFF members were still open and had nearly everything they needed. With the closure of many of our brochure distribution locations such as libraries and other gathering places, we chose to increase the number mailed directly to individual homes. During the holiday season we partnered with Durham Tourism to create videos encouraging people to Shop In Durham.

As an association we adapted to meet our members needs and better serve our community. As we move through 2021, we are still figuring this out as we go, but together as an association we can do great things!

2021 Work Plan

DFFMA has developed the 2021 Work Plan based on the following:

1. Actions identified in the Region of Durham Agricultural Strategy in which DFFMA is listed as a potential partner;
2. Actions identified in the Region of Durham Local Food Business Retention & Expansion Project;
3. DFFMA existing and new marketing projects and partnerships

We will continue to promote our members' farm products, entertainment and education opportunities through our brochure, website, and social media. We are proud to award our very first DFF marketing awards, recognizing the achievements of our members.

A restructuring of our membership categories has allowed us to broaden our membership and welcome new members for which previously, there was not a clear fit. We look forward to growing our membership and working with those who are passionate about local food.

After a year hiatus, we are excited to again host our annual Gates Open event in October. At this point in time we are uncertain as to what format it will be, we are open to a range of options from virtual farm tours to an in-person event if it is safe to do so.

Creation of virtual workshops, webinars and educational opportunities for members to help them develop the necessary skills to improve their business continues to be a focus.

Despite the current challenges, we are excited for all that 2021 will bring to our association.

We thank you for your time today.